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ON CENTRIC HYPERTROPHY OF THE PROSTATE.

By W. H. VAN BUREN, M.D.,

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There is a form of prostatic disease characterized by change of shape and increase of size, mainly involving the urethral and vesical surfaces of the organ, but unattended by peripheral enlargement recognizable by the finger introduced into the rectum. It is one of the varieties of hypertrophy of the prostate, and depends upon the same structural lesions which belong to that disease; but in the absence of the usual physical changes in the size and shape of the gland, as felt from the rectum, it is, in my experience, very liable to be overlooked. As it is more likely to produce all the usual obstructive symptoms at the neck of the bladder than the more ordinary forms of prostatic enlargement, and is, moreover, not very infrequent in occurrence, it seems to me to deserve more attention than it has received from surgical writers.

The following quotation comprises all that is contained in Mr. Henry Thompson's excellent monograph on the "Enlarged Prostate," descriptive of this phase of the disease. Speaking of enlargement, he says:—"The tendency is, in some instances, strongly manifested in a direction towards the centre of the organ, or the neck of the bladder. In others, it appears to affect an opposite direction; to become developed very largely at its periphery. In the former, which for brevity's sake may be denominated *centric* hypertrophy, the outflow of urine may be very materially obstructed before the prostate has increased much in weight and size. In the latter, which may be described as *eccentric* or peripheral, a very large development may take place, and an enormous prostate may be encountered in the rectum, and yet little obstruction to the course of the urine will be manifested. This, it is almost unnecessary to remark, is a form far more favorable to the patient than the other."—(p. 28.) Hodgson, Adams, and Civiale are silent in relation to this form of disease.

I may remark here that in both of the cases I am about to relate, I could make out *no enlargement whatever of the prostate, as felt from the rectum*, and I have taken great pains to judge accurately as to this point.

By what evidence, then, in a case of difficult micturition, is the existence of "centric hypertrophy of the prostate" to be established?

1st. By the absence of ordinary stricture in the spongy and membranous divisions of the urethra, as proved by the passage of a full-sized sound, and by the antecedent history of the patient.

2d. By the presence of resistance and pain on carrying the sound through the prostatic portion of the urethra.

3d. By the age of the patient; if he is fifty or over, the chances are in favor of prostatic enlargement.

4th. By the absence of the usual sense of relief after passing water; the frequent recurrence of the desire; the small size and diminished force of the stream (after ordinary stricture has been excluded); and by a peculiar sense of obstruction to the free escape of the urine, of which most patients are conscious.

5th. When cystitis is present, in any degree, these last signs (under 4th head) lose their significance, and the patient must be examined for stone in the bladder. In doing this it must be borne in mind that calculus and hypertrophy of the prostate frequently coëxist, and that the *bas-fond* of the bladder is usually enlarged in the latter case, so that a sound with a short curve must be employed, the extremity of which may be swept over the floor of the bladder behind the prostate. It is generally necessary to repeat this operation (of course with extreme care and gentleness) several times.

6th. In the next place the absence of *atony* of the bladder must be ascertained. To do this, a catheter of ordinary size should be passed *whilst the patient is lying down*, and after he has retained his urine as long as he conveniently can. If the urine flows continuously, without any pressure being made over the hypogastrium, there is no atony.

If you ask a patient with atony of the bladder to pass his water *in the upright position*, the weight of the small intestines pressing upon the bladder from above, with the assistance of the abdominal muscles, will produce a stream resembling very much in size and feebleness that of prostatic enlargement.

7th. The inability of the bladder to empty itself entirely—in other words, the presence of residual urine in the bladder—is a symptom common to atony and prostatic obstruction; and, inasmuch as temporary atony from over-distension is not unfrequently present in enlarged prostate, it is obviously a point of no little difficulty in the diagnosis to exclude the former affection. Examination of the urine, no matter how carefully conducted, unfortunately throws no light upon the question, for residual urine, whether so rendered by obstruction or paralysis, is always turbid and ammoniacal, and liable to contain blood, pus, and phosphatic deposits.

The presence of residual urine in the bladder is ascertained by introducing a catheter immediately after the patient has urinated; and, when present, the diagnosis lies between atony and obstruction.

8th. Finally, we must not lose sight of the fact that cancer involving the neck of the bladder is capable of simulating hypertrophy of the prostrate. I saw an old gentleman of 65 with Dr. McCready, in October, 1862, in whose case this question arose; he had a large tumor in the region of the prostate, which felt not unlike an enlargement of that organ. In another case of epithelial cancer of the bladder, occurring in a gentleman of 55, whom I saw in 1859, I find the following note:—"He passes water more frequently than natural, say ten or twelve times a day, with slight tenesmus. There is always some delay before the stream commences, and its size and force are both sensibly diminished." His prostate was perfectly normal.

I should say that cancer was to be distinguished from centric hypertrophy of the prostate by the greater amount and severity of the hæmorrhage, and pain in the former; the existence of cancerous cachexia; and, above all, by the presence in the urine of the microscopic elements of cancer. When any suspicion of cancer exists, the use of instruments should be avoided if possible.

It is sufficiently obvious that the diagnosis of centric hypertrophy of the prostate requires care and tact, and a practised hand in the use of sound and catheter; but it will well repay the patience required to arrive at a correct judgment. The early recognition of this condition, before the bladder has sustained serious injury, places it in the surgeon's power, by judicious treatment, to save his patient an infinite amount of suffering, and generally to prolong his life.

Inflammation of the bladder from the constant presence of decomposed and irritating residual urine; the danger of calculous deposit from the ammoniaco-phosphatic salts which it always contains in excess; sacculation of the bladder; distension of the ureters; and lastly, but no less certainly, invasion of the pelvis and secret-

ing structures of the kidneys—all follow in inevitable sequence from the obstruction to the outflow of the urine; and nothing short of the intelligent application of the surgeon's art can arrest the progress of this melancholy procession of symptoms towards a fatal termination.

Case 1.—A. R., 64, a healthy, robust married man, farmer by occupation, was sent to me from the country by an old pupil in the autumn of 1865, with a history of difficulty in passing water, constant desire, pain in back and at root of penis, gradually increasing for nearly a year, and one attack of retention, which was relieved by the catheter after much suffering and delay, and no little difficulty in the introduction of the instrument. There was suspicion of stone, of disease of prostate, and of inflammation of bladder; but only the latter had been clearly made out. I asked the patient to make water in a glass vessel; there was a delay of several minutes before it came, and then the stream lacked force and volume, and was ejected towards the last by spirts and with pain. Placing him on his back, I introduced a full-sized conical catheter with a bulbous extremity, and his bladder expelled, without assistance, nearly as much as he had just passed. The instrument passed readily enough, but resistance and pain were experienced just as its shoulder entered the bladder. The finger in the rectum detected no enlargement of the prostate; perhaps it was a little harder than natural, but otherwise normal to the touch. The urine voided was turbid, high-colored, and smelled strong. It colored red litmus-paper blue; and when dried in the sun, the paper became red again, indicating the volatile alkali. Before withdrawing the catheter, I washed out his bladder two or three times by injecting about ℥ iij. of blood-warm water each time, and allowing it to run off, and advised for the present, diluents, abstinence from stimulants, and rest.

The urine deposited a rather copious sediment, which, under the microscope, I found to consist of pus, some blood-corpuscles, and amorphous triple phosphate, with phosphate of lime.

Forty-eight hours afterwards the patient reported that he had retained his urine nearly three hours and a half after the washing out of his bladder—a longer interval than he had experienced for six months—but that the old frequency of desire had gradually returned. I examined his bladder carefully for stone, and finding none, injected again with warm water.

I felt satisfied that the case was one of "centric hypertrophy of the prostate," with moderate cystitis and inability to empty the bladder thoroughly, and decided to teach the patient to introduce the catheter for himself, and to inject his own bladder—once in the twenty-four hours. He proved to be docile and handy, and at the end of three weeks was able to return home very much improved, and feeling confident that he had found the remedy for his troublesome disease. His urine, when he left, was acid and nearly clear; he held it, on the average, nearly four hours, getting up but once in the night instead of three or four times; and was entirely rid of the dread of his water "stopping off" again, which had been his constant fear, feeling that he possessed the ability to relieve himself in case this should occur.

I heard not long ago that this patient remained satisfied with his condition, and without any increase of his disease.

Case 2.—H. M. M., 51, merchant, delicate, but always healthy; married; father died with calculous disease. Came under my care in December, 1863, complaining of failing health, pain in the back, which has existed more than a year; too frequent desire to pass water during the same period, increasing gradually, and latterly occurring about ten times a day. On asking the patient to make water in my presence, I find that he suffers a certain amount of pain in the act, located at the root of the penis and neck of bladder, and that the urine comes slowly, with a thin stream, and partly by a rapid succession of drops. After urinating, his sense of relief is not perfect; and, on questioning him closely, I find that he has rarely, of late, been entirely free from a feeling of uneasiness about the bladder, suggestive of a desire to pass water. He is regular and temperate, almost abstemious in his habits, and has never had gonorrhœa. An ℥ viij. phial full of his urine, which is turbid, deposits a stratum half an inch deep, containing pus and blood-corpuscles and epithelium, mostly nucleated. He passes in all about ℥ xxxv. in twenty-four hours. It has a slightly fishy odor, is neutral when voided, and rapidly becomes alkaline. Suspecting residual urine, I introduced a No. 9 catheter after he had passed ℥ iij. in his slow, dribbling manner, and drew off ℥ iv. more. On withdrawing the instrument, which encountered slight resistance and caused a little pain just as it was passing into the bladder, it was followed by a drop of blood.

On careful examination of the neck of the bladder from the rectum, *I find no increase of size in the prostate, nor any alteration in its shape, consistence, or temperature.* The treatment was adopted of daily introducing a flexible catheter, and syringing out the bladder with tepid water, which was followed at once by improvement in the character of the urine and diminution of the frequency of the calls. I found the urine clearer, faintly acid, and almost natural in odor for the rest of the day after the injection; but the next morning the same proportion of residual urine was found, with the usual fishy smell. At the end of a month this amount of improvement was established, but nothing further. Meanwhile I had satisfied myself that there was no paralysis of the bladder, and had several times carefully examined the patient for calculus, without result. I was suspicious on this point, for he had several times passed small soft masses of yellowish-white gravel, which I ascertained to consist of a mixture of the phosphates of ammonia, magnesia, and lime; previous to voiding them, he suffered increased irritation of the bladder. The patient was then taught to use the catheter for himself, and directed to draw off his urine and inject the bladder twice in the twenty-four hours. This was again followed by improvement; but at the end of some months he was almost as bad as at first. The difficulty of voiding the urine had somewhat increased, and on one or two occasions he had retention. In addition to this, the conical probe-pointed flexible catheter which he used was passed with increased difficulty and pain, and sometimes could not be passed at all. Under these circumstances, recognising that the patient's inability to void his urine in the natural way was irremediable, and that his constant straining was evidently keeping up and aggravating his cystitis, and having made up my mind that the whole cause of trouble was "centric hypertrophy of the prostate," with a probable development of the "third lobe," which acted like an obstructive valve, and that it was increasing (although there was still no enlargement to be felt from the rectum), I determined that he should relinquish all effort to pass water through the urethra, and rely entirely upon the use of a properly-curved catheter whenever the desire occurred. He accepted this conclusion with some reluctance, and I had some trouble in drilling him in the use of the instrument; but finally he acquired the knack of passing a Weiss' catheter No. 5, with a short, sharp, and extreme curve, and has done so about five times in the twenty-four hours for the last nine months without pain or failure in a single instance. He still uses the warm-

water injection once or twice a day; his cystitis has almost disappeared; his urine is clear and uniformly acid; his weight and general health have returned to their former standard, and he is satisfied that he has found the only effective remedy for his disease.

I have digested and condensed this case from my note-book, where I kept a full record during its progress, and believe that it presents a correct picture of the disease to which Mr. Thompson has given the correct designation.

A CASE OF

COMPLICATED DOUBLE HARE-LIP AND CLEFT PALATE,

SUCCESSFULLY OPERATED ON

By GURDON BUCK, M.D.,

SURGEON TO NEW YORK HOSPITAL, ETC., ETC.

Harriet Quinn. æt. eight years; Winsted, Conn. Admitted March 16, 1865, into New York Hospital.

A double fissure traverses the roof of the mouth, on either side of the septum nasi, and splits the velum and uvula.

The cleft of the upper lip is also double, with a central tongue-shaped portion of the lip suspended from the columna nasi. and interposed between the clefts.

The division of the orifice of the left nostril is complete; the ala of this side yawns widely open. The ala of the right nostril is still held *in situ* by a small band of integument fastening it to the septum.

Fig. 1.

An intermaxillary bone, supporting three incisor teeth (the two middle and left lateral), stands out prominently from the space between the two nasal fissures, and is continuous above with the septum, which affords it its only support.

This salient projection is covered by the central tongue-shaped portion of lip already described, and constitutes a revolting feature in the deformity. It is deflected from the median plane to the right side, and its margin is in contact with the corresponding margin of the cleft of the maxilla. This deflection shuts off the view into the right fissure, while it exposes widely the view into the left. The teeth occupying the intermaxillary bone stand out irregularly. The inferior margin of the septum is thin posteriorly, and grows thicker as it advances forward, and expands into the intermaxillary bone.

All the parts involved in the malformation present a healthy aspect, and both halves of the upper lip are supple and extensible.

Operation.—*March* 18, 1865; 12 *o'clock.*—Patient being etherized, the following operation was performed: —

The central tongue-shaped portion of the upper lip was dissected up to its junction with the columna nasi. The intermaxillary bone was excised horizontally on a line with the inferior edge of the cartilaginous portion of the septum. The tongue-shaped appendage was then brought down to cover the fresh-cut margin of the vomer, and its edges being squared, were stitched on either side to the mucous membrane covering the vomer. By this means the columna was lengthened out to its full dimensions.

The next step of the operation consisted in detaching the two halves of the lip extensively on either side from the bone, and preparing the opposite edges of the cleft for coaptation. This was done as follows:—The lip being held upon the stretch, was dissected up freely from the ascending nasal process of the superior maxilla, and outward from the neighboring bony surface, as far as the last molar tooth. This being done on both sides, permitted the opposite edges of the cleft to be brought readily into contact below the septum, and without tension. As the anterior extremities of the upper maxilla, which form on either side the boundaries of the bony cleft, projected far beyond the line of the dental arch, they required to be reduced into place. This was done by cutting through the bone transversely, high up on the palatine surface of the alveolar arch, with Butcher's forceps, and then seizing the projecting part with flat-jawed forceps, and crushing it down into

Fig. 2.

place. Both sides being treated in this way, the bony cleft was narrowed, and the approximation of the two halves of the lip greatly facilitated.

The edges bordering the cleft in the lip were next prepared. The angle on either side was seized with clawed forceps near its vermilion border, and held tense while the lip was transfixed at the point seized, and the section carried upwards to where the lip joined the ala nasi. Both strips were brought down with their cut edges facing each other, and traversed with a coarse thread which served to hold the newly-cut edges of the lip even, and facilitate the introduction of the sutures.

The first suture, which was a pin suture, was introduced at the vermilion border, and wound with yarn. The second, also a pin suture, was inserted high up close to the septum, and secured in the same way. Two interrupted thread sutures were inserted between the pins. The strips which had been pared as above mentioned,

were shortened so as to leave a pouting projection at the vermilion border; three fine thread sutures were inserted to secure them in coaptation. The alæ nasi, which were compressed by the approximation of the two halves of the lip, were somewhat relieved by an incision circumscribing them, and extending through the entire thickness of the integument and mucous membrane. Considerable hæmorrhage unavoidably occurred, but only a single vessel required a ligature. No adhesive straps were used. Water dressings were freely applied to the face; stimulants administered *pro re nata*. Patient to take Liquor opii comp. gutt. x. Draught rejected. At 7 P.M., Liq. opii comp. gtt. v., repeated at 12; midnight, gutt. x.

March 19.—Slept well. This morning somewhat feverish. Pulse 120. Ord. Spir. Minderer ʒ ij., ℥ q. h. Yarn removed from pins, and fresh yarn reapplied. Moderate amount of swelling in both cheeks. Considerable redness of right cheek. Cap. Elixir Opii McMunn gutt. x. at bedtime.

March 20.—Rested well. Swelling of cheeks subsiding. Redness of right cheek diminishing. Sal. Rochelle ʒ ij. administered to move bowels, Fresh yarn applied to pins. One suture removed from the lower portion of the wound.

Cast of Mouth, before Operation, in Profile.

March 21.—Improving. Still feverish. Pulse 120. Bowels have not moved. Redness of cheek nearly gone. Swelling subsiding. Omit Sp. Mind. Ulceration beginning about the pins. The lower pin was removed, and fresh yarn applied to the upper pin. Elixir McMunn gutt. x.

March 22.—Doing well. Bowels have moved freely. Patient less feverish. Skin cool. Pulse 112. P. M.—Upper pin removed. Sutures removed from the vermilion border of lip. Adhesive straps applied from one cheek to the other, to afford lateral support. Patient irritable. Cap. Elixir McMunn gtt. v., ℥ q. h.

March 23.—Swelling of left cheek subsided; that of right increased a little, with slight redness. Continue water dressings. P. M.—Remaining sutures removed. The newly cicatrized upper portion of the wound has slightly yielded under the tension resulting from the swelling of the cheek. To counteract this a single thread suture was introduced high up, and a patch of three thicknesses of adhesive plaster inserted under the knot. Adhesive straps reapplied so as to afford lateral support. Omit. Elixir McMunn.

March 27.—Improving. Suture removed from lip. Straps reapplied.—*April* 2.—Patient about the ward. Alæ of nose disposed to flare out.

April 21.—The parts have entirely healed. A slight notch has gradually developed itself at the middle of the vermilion border of the upper lip, where the two halves unite, owing to the unavoidable shortening of the perpendicular cicatrix which unites the two halves.

The pressure of the left half of the lip upon the only remaining incisor tooth keeps up ulceration and swelling of the mucous membrane. To relieve this, the tooth was to-day extracted by Mr. Bishop, dentist.

Both alæ of the nose are still disposed to flare out; to correct which, a plug of lint is kept in each nostril by a strip of adhesive plaster, applied from one side of the nose to the other, over the protruding plugs.

Patient was discharged, with the promise to return to the hospital early in June for further examination.

August 22.—The illustration (Fig. 2), from a photograph taken at Winsted several weeks after she left the hospital, shows a great improvement in her appearance.

CASES OF

LOSS OF SPEECH, OR APHASIA,

AS CONNECTED WITH HEMIPLEGIA, WITH REMARKS.

By AUSTIN FLINT, M.D.

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The term *aphasia* has recently been proposed by Trousseau to denote loss of the power of speech occurring without inability to perform the movements involved in the utterance of language, and without any lesions of the organs of phonation. This term appears to be generally accepted in lieu of the terms *alalia* and *aphemia*, which have been used in a similar sense. Loss of the voice, as a consequence of either laryngeal disease or paralysis, affecting the spinal accessory nerve, is denoted by the term *aphonia*. Loss of power to pronounce words arises from inability to produce or coordinate the movements necessary to articulation. The difficulty in aphonia is independent of these affections; the voice is not lost, and the control over the muscles of the tongue and lips is preserved, but the patient is mute from an inability to use words expressive of his ideas. The difficulty consists in the loss of memory as regards language. In extreme cases this loss of memory is total, the patient being absolutely dumb; but the difficulty in some cases is manifested by more or less impairment of speech without complete mutism. Moreover, the loss of speech is not in consequence of the absence or confusion of ideas. Patients affected with aphasia may understand perfectly what is said to them; they may be able to read; and, in some cases at least, there does not appear to be deficiency of intelligence.

The attention of clinical observers has recently been directed to this affection. Within the past few months it has been under discussion in the Academy of Medicine in Paris, and reports of cases have appeared in some of the British medical journals. The difficulty relating to the intellectual faculty involved in speech, clinical researches have seemed to bear upon the localization of this faculty. All observers agree that the affection, in the great majority of cases, is associated with hemiplegic paralysis, and that the paralysis, as a rule, is on

the right side of the body; hence, it has been inferred that the faculty of speech is seated in the left hemisphere of the brain. A French observer, Dr. Dax, appears to have collected the largest number of cases, viz. 140, in which the paralysis was on the right side.* It is intimated, however, that some of these cases were not cases of veritable aphasia. Dr. J. Hughlings Jackson, of London, has reported 34 cases, of which in all but three the right side was paralysed.† In a large proportion of these cases cardiac murmur coëxisted, a fact which the reporter considers as tending to show the probable production of the paralysis by embolism. According to Trousseau, in the immense majority of cases there exists softening of the brain. The affection, however, is not invariably associated with hemiplegia; that is, it may be independent of paralysis: and that it may exist without softening or other structural lesions is rendered probable, not only by the fact just stated, but by the complete recovery from the paralysis in some of the cases in which the latter coëxists.

During the past five years six cases of aphasia have fallen under my observation at Bellevue Hospital, some of which have been presented at my clinic in the hospital amphitheatre. I propose in this article to give a brief account of these cases, hoping that I may in this way lead other clinical observers in this country to report cases, and thus contribute to the accumulation of facts for the elucidation of the affection. Of the six cases, one case at the present time remains in hospital, and another, having been under observation for several weeks, has just been discharged. Of two of the remaining cases I have preserved notes, and my account of the other two cases must be given from recollection.

Case 1.—This case came under observation in 1861. The patient was a female, aged about 35. She had been in the hospital for several months. She had entered with hemiplegia, from which she had nearly or quite recovered, and she was employed as a helper in one of the female wards. She was speechless, except that she uttered the word *yes*. This word she pronounced distinctly, and she invariably utte ed it whenever she attempted to speak. She was not devoid of intelligence; on the contrary, she was bright and active, doing the duty of a ward-helper as efficiently as any one in the same capacity in the hospital. Much effort was made to teach her to pronounce other words than the one which comprised her vocabulary, but in vain. She left the hospital without any improvement as regards speech, and her subsequent history is unknown. I am unable to state whether the hemiplegia affected the right side in this case.

Case 2.—The patient in this case was a male, aged about 35. He entered the hospital with hemiplegia, which was nearly complete. The aphasia was complete, the patient being unable to utter a word. He recovered from the hemiplegia so as to walk about, but there was no improvement as regards speech, and he was discharged after having been in hospital several weeks. I am unable to state in this case whether the hemiplegia affected the right side. The patient appeared to be intelligent, and passed much of the time with a book in his hand, appearing to read; he evidently understood everything that was said to him. On being requested to write, he made the attempt, but the result was a jumble of lines from which nothing could be made out.

Case 3.—The following condensed account of this case is given from notes made at the time the case was under observation:

J. P., aged 34, was admitted November, 1861. It was ascertained from friends that on the day prior to his admission he appeared to be well, but he complained of palpitation on going to bed. On the morning of the day of his admission he was found to be hemiplegic and speechless. The hemiplegia was on the right side, and was complete. The face was not disturbed. The tongue was deflected to the right side. Intelligence appeared to be intact. He protruded the tongue readily, but was unable to speak. The heart's action was rapid and irregular, but there was no cardiac murmur, and the size of the head was normal.

Nov. 30.—When the ward containing this patient passed into the hands of one of my colleagues, considerable improvement had taken place. He had recovered a certain amount of power over the paralysed limbs, and he seemed quick and bright as regards intelligence, but the aphasia remained complete; he evidently comprehended everything that was said to him, but he was unable to utter a word.

Dec. 5.—The hemiplegia had nearly disappeared, and the patient appeared to be well in every respect save the loss of the power of speech. When asked why he did not speak, he put his finger to his lips and shrugged his shoulders. Shortly after this date he was discharged.

Case 4.—G. W., aged 50, was admitted Oct. 2d, 1862. His wife stated that he was suddenly attacked with hemiplegia in Jan., 1863. For two years previous to this attack he had complained from time to time of pain in the head. He recovered from the paralysis in a short time sufficiently to return to his occupation, which was that of a roofer. In February he had an apoplectic seizure, with a return of the hemiplegia on the same side as before, viz. the right side. When admitted, he had sufficient power over the lower limb to walk, but with a halting, unsteady gait. The upper limb was completely paralysed. There was no want of power over the muscles of articulation, and he appeared to understand fully everything said to him; but he was only able to utter the word *yes*, which he invariably uttered whenever he attempted to reply to questions. There was no improvement as regards the aphasia up to his death, which occurred Dec. 11, 1865. His death was occasioned by an attack of pneumonia.

On examination after death, the anterior surface of the left hemisphere of the brain presented two depressions situated near each other, each occupying an area of the size of a half-dollar. Within these spaces the brain-substance was of a pulpy consistence. The softening extended to the left corpus striatum. There was no appearance of extravasated blood here or elsewhere. There was no appearance of meningitis. The vessels near the softened portions, examined microscopically, were found to be healthy. The heart was free from lesions.

Case 5.—S. F., aged 34, was admitted July 21st, 1865. The previous history was not ascertained. When admitted, hemiplegia affecting the right side was nearly complete. He began shortly to improve as regards the paralysis, and after a few weeks was able to walk about. He was discharged Nov. 18, 1865. He was then able to walk with but little difficulty, but the upper limb still remained considerably paralysed. The aphasia in this case was not complete. The patient could say *yes*, *no*, and *I don't know*. These words comprised his vocabulary. The intelligence seemed to be intact; he understood everything that was said to him. An aortic regurgitant murmur existed in this case, the heart not being much, if at all, enlarged.

Case 6.—S. M., aged 63, was admitted Sept 17, 1865, and is still in the hospital. The previous history in this case has not been ascertained. The right side is incompletely paralysed; the patient is able to walk about

* Archives de Medecine, Jan. 1865, and London Lancet, Aug. 1865.
† Clinical Lectures and Reports, London, 1861; and Archives de Medecine, March and April, 1865.

with a crutch. There is no cardiac murmur. The aphasia is partial in this case. The patient is able to utter a considerable number of words, but he is unable to express his thoughts or wishes. He begins a sentence, and after trying to recall words, he says, "I can't," "I can't." He is able to repeat words directly after they are pronounced by another, but in a moment he forgets them. He understands what is said to him, but his intellect seems to be weakened.

As regards the side affected with hemiplegia, I am unable to state the fact in two of the foregoing cases. In the remaining four cases, the hemiplegia affected the right side. Does it follow from the great preponderence of the cases of aphasia, in which the right side is paralysed, that the mental faculty of speech is to be *localized* in the left hemisphere of the brain? Irrespective of the improbability of the faculty being seated in either hemisphere to the exclusion of the other, this question is to be answered negatively, in view of the fact that aphasia does occur in cases of hemiplegia affecting the left side, although the number of such cases is comparatively few. Were the faculty of speech seated exclusively in the left hemisphere, there should be no exceptions to the rule of the hemiplegia being on the right side. The situation of the hemiplegia on the right side, in the great majority of the cases of aphasia, is, however, a striking fact, which, of course, has an adequate explanation. Autopsical researches may show that the loss of speech depends on a particular situation, in either hemisphere, of the morbid conditions giving rise to the paralysis; and that, for reasons at present unknown, this situation is more likely to be involved when the conditions are seated in the left than in the right hemisphere. In the only one of the six cases in which an autopsy was made, there was circumscribed softening of the anterior lobe of the left hemisphere, the softening extending to the superficies. So far as this case goes, it sustains the statement of Trousseau, that in aphasia there generally exists softening.

In all these cases the aphasia persisted without any improvement. So far as these cases go, they do not afford encouragement to expect the return of the power of speech, even when recovery from the hemiplegia is nearly complete. Recovery from aphasia does, however, sometimes take place. I have met with an instance of incomplete aphasia, in private practice, associated with transient hemiplegia, in which, after a few days, the memory of words returned. A case of recovery from complete aphasia, with hemiplegia, is reported in the *Buffalo Medical and Surgical Journal* for November, 1865, by Dr. Conger. Trousseau and others have reported cases of recovery.

In cases of persistent aphasia it is not easy to determine to what extent the mental faculties are preserved, aside from the memory of words. The ability to comprehend freely what is said, and sufficient intelligence to perform routine duties, are certainly not incompatible with the loss of speech; but it is extremely difficult to ascertain the mental condition as regards the reasoning powers, judgment, and sentiments. Trousseau is of opinion that the intelligence is always impaired to a greater or less extent. With reference to this point of inquiry, further study of the affection is desirable. The affection, in this aspect, has an obvious and important medico-legal bearing.

Personal.—Dr. Jas. P. White of Buffalo, New York, sailed recently for Europe, with the intention of being abroad for eighteen months. Dr. Henry M. Lyman of Chicago, and formerly of this city, has become one of the editors of the Chicago *Medical Journal.*

THE GUTTA-PERCHA SHOE IN THE TREATMENT OF TALIPES.

By ALFRED C. POST, M.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF SURGERY, UNIVERSITY MEDICAL COLLEGE, N. Y.

About sixteen years ago I was treating a little girl for talipes varus, with a modification of Scarpa's shoes, which I was then in the habit of employing, when troublesome ulceration of the integument occurred from the pressure of the straps which were used to secure the shoes upon the feet. It was evidently a matter of necessity to omit for a time the use of the shoes, until the ulcerated surfaces should have an opportunity to heal. I was much chagrined by the prospect of a long delay in the treatment, especially as the patient resided in the country, and it was quite inconvenient to the parents to keep her for a long time in the city. I was led to reflect on the best means of preventing a return of the deformity towards its original condition, during the period when I should be obliged to suspend the use of Scarpa's shoes. It occurred to me that a splint or shoe of gutta-percha might be applied in such a manner as to maintain the improvement which had already been gained by the treatment, if not to make some further advance towards a cure of the deformity. I accordingly contrived and applied such an instrument, keeping it in place by means of a roller bandage. I found that by this means the feet could be maintained in a good position, with very little inconvenience to the little patient; and under appropriate dressings, the ulcerated surfaces soon healed. To my surprise, the deformity yielded more readily to the new treatment than it had done while Scarpa's shoes had been worn, and I felt no disposition to return to the use of the spring shoes after the ulcers had healed. From my experience of the benefits of the simple contrivance which I had used in the case just alluded to, I was induced to employ it in similar cases which were presented to me; and the results were so entirely satisfactory, that I have ever since employed shoes or splints of similar construction in the treatment of infantile club-foot, in preference to the spring shoes which surgeons ordinarily employ for the same purpose. The material which I ordinarily use in the construction of these shoes is a gutta-percha sheet from a sixteenth to an eighth of an inch in thickness. It is cut of such a shape as to adapt itself to the sole and sides of the foot, leaving a space uncovered on the dorsum of the foot equal to about one-third of the breadth of the foot; it is also adapted to the sides of the leg, extending up two-thirds of the distance to the knee, and leaving a narrow space uncovered before and behind, each space so uncovered being about one-sixth of the circumference of the leg. The material is readily moulded to the shape of the limb, by immersing it for a few seconds in water, at a temperature of 100° Fahrenheit. I am in the habit of moulding the shoes thus heated, over a wooden last made for the purpose. The last is not made after the fashion of a bootmaker's last, but it is shaped like the natural leg and foot, except that the outer side of the foot is made to correspond with the inner, thus obviating the necessity of having separate lasts for the right and left foot. I have sometimes used similar shoes made of felt stiffened with shellac, as manufactured by Dr. Ahl, of Southern Pennsylvania. In order to mould the felt, it must be dipped in water at nearly a boiling temperature, and the hands require to be protected by means of cotton gloves wet with cold water. I am rather inclined to prefer the gutta-percha shoes to those which are made of felt, es-

pecially as the former material is more conveniently moulded to its proper shape.

I generally commence the treatment of infantile club-foot by the subcutaneous division of the tendo-Achillis, after which I apply a strip of isinglass plaster over the small wound of the skin. I then have the foot held by an assistant as nearly as possible in its normal position, and while it is so held, I careful'y apply a roller bandage so as to cover the foot and leg, beginning the application on the outer side of the ankle. I then apply the gutta-percha shoe, an assistant grasping the leg with one hand, pressing the upper part of the shoe against the sides of the limb, and with the other hand pressing the sole of the shoe against the sole of the foot. While the shoe is thus firmly pressed against the leg and foot, I apply a roller bandage firmly, so as to secure it in its place. After the lapse of twenty-four to forty-eight hours, I take off the bandages and shoe, wash the foot, wipe it dry, use passive motion freely in different directions, and then reapply the apparatus as before. The application is repeated at intervals of two or three days, until the foot is brought to its proper shape, when it is put up in a laced boot, lacing to the toes, and

having a firm sole and stiff sides, provided with iron braces which extend nearly as high as the knee, and secured by a strap and buckle around the upper part of the leg.

The following are, in my estimation, the advantages of the gutta-percha shoe over Scarpa's shoe, and its various modifications:—

1st. Its greater simplicity, and the ease with which it is made. When the material is at hand, the shoe can readily be made in fifteen minutes.

2d. It is much cheaper than the spring shoe.

3d. It is more comfortable to the patient, being lighter, exerting a less injurious pressure, and being less likely to be kicked off by a restless child.

4th. It is much less likely to occasion excoriation or ulceration of the integuments.

5th. It expedites the cure, giving a better support to the foot, and bringing it more readily into its normal position.

The annexed woodcut exhibits a view of the gutta-percha shoe, and of the last on which it is moulded.

M. Jobert de Lamballe is suffering under mental derangement, which has necessitated his confinement in a lunatic asylum.

BLEPHARITIS CILIARIS AND PHLYCTENULAR CONJUNCTIVITIS.

By E. WILLIAMS, M.D.

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It is not my purpose to give a lengthy description of these common and well known diseases, but to call attention to some practical points in their treatment. Still, a hasty sketch of their characteristic features will facilitate a better appreciation of the therapeutic measures which I wish to present. Whether associated, or existing separately, blepharitis ciliaris (sometimes called blepharitis marginalis—bleparadenitis—tinea tarsi) and phlyctenular or pustular conjunctivitis occur usually in early life and in the same class of patients. The period of life at which they are most frequent is from the second to the fifteenth year. If they are seen after that age, it will generally be found to be but a continuation of the same affection from an earlier period. Children of a strumous or scrofulous diathesis are the almost exclusive victims of these maladies.

Strictly speaking, blepharitis ciliaris, as the name intimates, commences in the individual follicles of the eyelashes, and invades the other textures of the lids subsequently. It is an inflammation of those follicles followed by little abscesses, of which the cilia form the centres. These minute collections of pus become confluent along the edge of the lid, agglutinating the lashes in little tufts, and forming scabs or crusts as they desiccate. These adhere very firmly, and when removed forcibly, produce pain, often bring away some of the hairs, and the surface beneath is found to be raw or ulcerated—perhaps bleeds. These patches of disease may be limited, or extend the entire length of the lid. When this local difficulty has lasted for some months or years, the bulbs of the lashes are gradually obliterated, the hairs fall out, grow in a stinted form, or cease altogether; giving rise to that thickened, red, perhaps partially everted state of the edge of the lid, called *lippitudo*.

Blepharitis ciliaris, when once well established, usually persists for years, or for the remainder of life, if cleanliness and favorable hygienic measures are impracticable or not enforced. The amount of redness, swelling, and soreness of the lids varies very much under special provocations or favorable circumstances. The smouldering fire at the roots of the lashes, however, never ceases; and that is the focus from which they flame out. Intercurrent attacks of phlyctenular conjunctivitis often complicate and aggravate the difficulty; and not very unfrequently, in the chronic forms, there is set up blennorrhœa of the lachrymal sac, with its consequences. On the contrary, blepharitis marginalis may, in its turn, be provoked and perpetuated by dacryocystitis, stricture of the nasal duct, and dilatation of the sac. Now these conditions mutually aggravate each other, and the necessity of embracing them all in the treatment is self-evident. Eczema and other eruptions about the face and head, and especially in and around the nostrils, causing a constant running, with redness and thickening of the nose, or the formation of scabs, are likewise a very frequent and troublesome complication.

Phlyctenular conjunctivitis (often called scrofulous ophthalmia), is marked by symptoms so peculiar as not to require a tedious description. It is a partial inflammation, commencing in the conjunctiva of the globe, and attended by pustules or vesicles. These so-called phlyctenulæ are most commonly seated on the line of junction of the cornea and sclerotica, but sometimes they are seen entirely on the one or the other of these structures. They are inflammatory accumulations of

serum or of pus under the epithelial layer of the conjunctiva, and when located on the cornea are designated phlyctenular keratitis. These may be absorbed without rupturing, but generally the elevated epithelium bursts and leaves superficial ulcers, called on the cornea, facetted ulcers. In favorable cases they then heal, by being first covered with a new epithelial layer, that makes them appear shiny and smooth in the bottom, and a subsequent reproduction of the deeper layers. On the cornea they leave little circular depressions, readily seen by looking obliquely at them, which persist a very long time before they are filled to a level with the general surface. If the ulcer extends deep into the lamellæ of that membrane, permanent, or at least long persisting, white specks or opacities are left behind. When situated towards the centre of the cornea, and a bundle of vessels develops under the epithelium, running from the conjunctiva scleroticæ to the pustule, lymph often exudes in a narrow strip along the course of the vessels, leaving a concentric opaque streak in the cornea. In some cases, on the other hand, a series of vesicles following from the margin towards the centre, are produced, attended by the gradual pushing forward of the little loops of vessels, and leaving when they subside the same riband-like opacity just mentioned.

So long as the phlyctenulæ are confined to the conjunctiva scleroticæ, there is seldom any marked intolerance of light or other suffering. But when they come out on the cornea, especially if near the centre, they nearly always give rise to extreme photophobia, profuse lachrymation, and sometimes severe pain. The intolerance of light is so intense often, that the little sufferers seek the darkest corners, lie on their faces and bury their eyes, covered with their hands, in a pillow or anything they can get, so as, if possible, to exclude every ray of light. This confines the perspiration, heats the eyes, aggravates the eruptions of the face, and is in all respects the most distressing symptom, lasting frequently for weeks together before any light can be endured. This feature of the disease is more marked in the morning, giving way towards evening, so that after sundown the child may open its eyes better. This excessive tenderness to light, resulting in reflex, spasmodic contraction of the orbicularis palpebrarum, and profuse lachrymation, is the result, in my judgment, exclusively of irritation of the corneal filaments of the fifth pair of nerves. Whenever I see these delicate, scrofulous children, with their eyes covered and spasmodically closed, I am certain that they have corneitis with little specks or ulcers. Still I always insist on holding the child's head between my knees, with its face up, and forcibly opening and examining the eyes, so as to see the exact state of the cornea. This is less cruel and also less *irritating to the mother*, than plunging the child's face in ice-water, as recommended by Graefe, and others.

In extreme cases chloroform may be used, but I seldom find it necessary. The photophobia is frequently out of all proportion to the amount of local trouble; but there is always some deposit in the cornea, or abrasion of its surface, which can be detected by a proper inspection.

It is comparatively seldom that these phlyctenulæ give rise to ulcers that invade the deeper layers of the cornea; but sometimes this occurs. The edges and bottom of the ulcer then become infiltrated with a dirty white or yellowish-colored deposit, which, as it goes deeper and deeper, becomes complicated by hypopium, and eventually, if not properly treated, results in perforation and prolapsus of the iris. This tendency to deep ulceration and perforation of the cornea in pustular conjunctivitis, is sometimes epidemic. A few months ago, some seventy or eighty children in one of our neighboring orphan asylums, were attacked within a few days with this disease. Rapid ulceration, hypopium, and perforation took place in many of them, and several were blinded in one or both eyes before any treatment was thought of. Some of them had had granulated lids previously, and some had not. The affection assumed the form of general catarrhal conjunctivitis, with large sloughing phlyctenulæ, which were not influenced by anything but repeated paracenteses of the cornea, atropine, and compression with cotton and an elastic bandage.

In the treatment of this class of diseases I have used for the last eight years a preparation, not found in any of our books, which is so uniformly and promptly beneficial, that I have abandoned all the other mercurial local applications in its favor. When *opportunely* and properly applied, it acts like a charm, and patients or their friends nearly always come back, if they ever have another attack, and ask for some more of that *brown salve*. The formula for its preparation, I found in a foot-note in an old edition of Wilde on the Ear. He recommended its use very highly in chronic diseases of the dermoid lining of the meatus auditorius externus. It occurred to me that its peculiar properties might prove useful in the diseases under consideration. I tested it extensively and faithfully, and it has far surpassed my most sanguine expectations. I call it the *brown citrine ointment*, and write it Unguent. citrin. rub. At my request, Mr. A. Fennel and Prof. E. L. Wayne, well known chemists and druggists of this city, have experimented in making the ointment till they have very much improved its quality. The original formula was the same as that of the U. S. Pharmacopœia for the preparation of citrine ointment, excepting that cod-liver oil was substituted for the axungia and the neatsfoot oil. Still it was somewhat granular and coarse, till Prof. Wayne finally succeeded by *reheating*, and then stirring till it was cool, in making a dark mahogany-brown salve of uniform consistence, tenacious, and readily melting with the temperature of the body. When rubbed on the lids or applied to the conjunctiva, it melts in a few seconds, spreads and adheres a long time to the lids, or, if used in the eye, is rapidly diffused over the ball by the movement of the lids, with *very little irritation*. It can be used in its pure state, and does not need to be *removed* afterwards at all. My treatment for blepharitis ciliaris is very simple. The first thing on which I always insist, and without which no treatment does much good, is to keep the edges of the lids *absolutely free from scabs or scales*. I have the eyes bathed with tepid water morning and evening, till the scabs are soft and can be readily scraped off, or rubbed off with a soft rag. If there is much rawness and soreness of the margins of the lids, I trim off the lashes with a fine pair of scissors, as close as possible. This is much better than pulling them out, as recommended by some authors; and when so trimmed, it is much easier to keep the lid free of scabs. If the lids are swollen and very sore, I have them poulticed every night for a few days; and sometimes when there are ulcers or raw places along the roots of the lashes, I touch them lightly for a few times, at intervals of two or three days, with a point of nitrate of silver. Every night, after the washing and cleaning, the salve is rubbed well along the edges of the lids with the finger. If it irritates and causes the skin to puff up and look redder next day, which it rarely does, the patient may omit the use of it the next night; otherwise, it should be applied every evening at bedtime. Its continuance two or three times a week for several weeks or months after the disease is entirely relieved, should be urged, to prevent a relapse. If there is much conjunctivitis, I

prescribe a solution of four grains of sulphate of morphia, and half a grain of sulphate of copper or zinc, to the ounce of water, dropped into the eye three times a day. Internally, such patients should always take iron or tonics of some kind. I usually give the Liquor ferri iodidi, in doses suited to the age of the subject, and keep it up for several months, to secure a *radical result.* Of course, regular exercise in the fresh air, good nourishing diet, bathing followed by friction, and the avoidance, as far as possible, of all causes of irritation, are important hygienic measures in this class of diseases.

In phlyctenular conjunctivitis, where the vesicles have their seat on the conjunctiva scleroticæ, or being on the cornea, give rise to but little intolerance of light and lachrymation, this salve again is most valuable. A portion of it, say a small drop, should be put from the end of a knitting-needle or probe, between the lower lid and the ball and the upper lid, then moved up and down a few times till it is spread freely over the cornea. This ought to be done at bedtime. The larger portion of the salve is soon washed and pressed out on the edges of the lids, and, if blepharitis exists, can be usefully rubbed along the margin; otherwise it may simply be wiped away. If the conjunctivitis is more general, and there is much mucous secretion, I direct the astringent given above; otherwise, the ointment alone suffices perfectly.

Phlyctenular corneitis is treated in the same manner, when the acute symptoms have begun to abate, or when it assumes a mild form from the start. If there is marked dread of light, spasmodic closure of the lids, and epiphora, a few days of preparatory treatment are necessary. For the relief of the photophobia and other symptoms arising from acute inflammation of the cornea, there is nothing equal to the local application of a solution of atropia. In a child from two to five years old, I prescribe a solution of gr. j. to aquæ ℥j., to be dropped into the eye from three to six times in the 24 hours, according to the intensity of the symptoms. If they are over five years old, a two-grain solution may be directed. Internally, the sulphate of quinine in very liberal doses, say from one to two grains, even more where the photophobia is extreme and obstinate, three times a day, with the solution of sulphate of atropia locally, nearly always overcomes these distressing symptoms in a few days. If the quinine alone does not subdue the intolerance of light, I combine opium with it, giving from half a grain to a grain with the quinine three times a day. Under this treatment, the child begins to open its eyes and bear the light better in a short time. It is astonishing what effect the atropia has in quieting the eye and allaying the inflammation. When the acute symptoms have decidedly abated under this treatment, the salve in the eyes once a day may be tried, and, if well borne, kept up for several weeks. It then not only allays irritation, and favors the healing of the phlyctenulæ, but promotes the absorption of the remaining opacities. After the first few weeks the quinine may be left off, or continued in smaller doses, in combination with iron; or, what is preferable, the iodide of iron may be substituted for it. When the acute symptoms and redness of the eyes are relieved, the atropia also may be suspended, and the case left to the use of the salve alone.

The eczema and other eruptions about the face, should be smeared every night with the same ointment. It acts very promptly in relieving all scabby eruptions on the face, head, and elsewhere. Instead of fearing to heal these up, I always try to get rid of them—especially the sore nose, which keeps the eyes irritated and protracts the cure—as soon as possible. Blisters and counter-irritants of all kinds should be strictly avoided, as doing no good and increasing the eruption of the face. Should the disease of the cornea assume the form of deep ulceration and hypopium, the energetic use of atropin, the compressive bandage, combined with paracentesis corneæ once a day, have yielded far better results than any other means that I have tried. The paracentesis often checks the progress of the ulcer immediately, and prevents perforation; or if it does not prevent perforation, it limits the lateral extension of the ulcer, and thus helps to save the cornea. I generally puncture the cornea once a day, under chloroform if necessary, for several days, till the hypopium and extension of the ulcer are relieved. I puncture the cornea to evacuate the aqueous humor and relieve tension, without regard to the pus. After the paracentesis, the pus or lymph is rapidly absorbed. I select the outer part of the cornea for the operation, simply because it is most convenient. I cannot too highly recommend this little operation in all cases of hypopium keratitis, as recently described by Roser, Von Graefe, Weber of Darmstadt, and others. Where there is a distinct abscess of the cornea, Weber's recommendation to puncture through the collection of pus is sometimes preferable, but must be done with great caution, to prevent the too sudden evacuation of the aqueous humor. He enters the needle at the most dependent point of the pustule, and passes it obliquely through, so as to enter the anterior chamber at the upper part. The aqueous fluid thus washes out the abscess as it escapes, and the further subsidence of the pus between the lamellæ is prevented. As a rule, I much prefer puncturing away from the seat of the ulcer.

I would say, for the information of any who may wish to get a good sample of the brown salve, that it can be ordered in any quantity of Suire & Co., druggists, N. W. cor. 4th and Vine streets, Cincinnati. I will not consume space in the discussing of the merits of other forms of mercurial salves, powdered calomel, &c., in these affections. They are all useful when used with discrimination, but in my practice very much inferior to the brown salve. The use of a seton in the temple, in phlyctenular corneitis, as recommended lately in the Ophthalmic Hospital Reports (London), Vol. IV; part iii, by Watson, I have never tried, and probably never will. Dr. Pagenstecher, of Wiesbaden, in his Klinische Beobachtungen, &c., 1861, recommends a salve of the amorphous yellow oxide of mercury very highly in the same cases. I tried it some years ago, but found it was very much more irritating than the brown salve, and less efficacious. In the *Ophthalmic Review* of July, 1865, is an excellent article from the pen of Dr. Pagenstecher, on the value of yellow oxide of mercury ointment, and the method of preparation and using. I have no doubt but he gives a candid and well formed opinion of its efficiency; but a comparative trial of the two preparations has led me to adhere to the brown salve as much preferable.

Fermenting Milk in Phthisis.—A European savan having observed that the peasants of certain Russian provinces where fermenting asses' milk was used as a beverage, were remarkably exempt from phthisis, has been trying experiments with a mixture of ass's and cow's milk in a fermenting condition, used as a drink by tubercular patients. To produce the fermentation he adds yeast to the milk, and the prepared drink he dignifies with the name of *galuxyme.* His patients begin with a small quantity, and gradually increase their daily allowance to four or five bottles. The effect is slightly exhilarating and somewhat laxative at first, and afterwards fattening. The consumptives get well, of course, as they do with all other remedies.—*Pacific Med. and Sur. Journal.*

Original Lectures.

A LECTURE ON

ACCIDENTAL PUERPERAL HÆMORRHAGE,

DELIVERED JAN. 19TH, 1866, IN

THE COLLEGE OF PHYSICIANS AND SURGEONS,

BY T. GAILLARD THOMAS, M.D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN.

THERE are three distinct periods at which the parturient woman is liable to an inordinate loss of blood; namely, during pregnancy, during labor, and for one month subsequent to that process.

This division is by no means an arbitrary one, but is demanded by the circumstances of the case, and required for convenience of study and lucidness of understanding. Even the limit of one month given to the third variety is based upon good grounds, for at the end of that time the heretofore hypertrophied uterus having undergone involution so far as to have arrived at nearly its non-pregnant state, any flow taking place thereafter is properly regarded as disconnected with the puerperal condition.

These three distinct periods divide puerperal hæmorrhage into three equally distinct varieties, viz.:

Hæmorrhage before labor.

Hæmorrhage during labor.

Hæmorrhage after labor.

The pathology and management, however, of hæmorrhage occurring during the latter months of pregnancy, and during labor are so identical that it would be a useless refinement to separate them in description. I shall therefore follow the example of Dr. Collins and others, describing those hæmorrhages occurring during the last three months of pregnancy, and during labor, under the same head; namely, of ante-partum hæmorrhage, thus distinguishing them from post-partum hæmorrhage.

I shall devote this lecture, however, to hæmorrhage occurring during, and not before, labor, merely premising the assertion that all the statements made concerning this variety will apply with equal force to that occurring in the last three months.

Source.—It may be safely announced as a rule, that whenever, during labor, a hæmorrhage occurs, it arises from partial separation of the placenta from the uterus, and consequent rupture of the utero-placental vessels. It is true that there are other sources from which such a flow may occur, as for example the vessels of the ruptured cervix, bulbus vestibuli, or funis; but these accidents are so rare that we need not embarrass and complicate the study of the subject by anything more than a mere mention of the possibility. It is evident, then, that to understand the pathology and treatment of these conditions, you must first clearly comprehend the anatomy of the placenta, upon the injury done to which the loss is due. Let me then very rapidly, and in a cursory manner, refresh your memories upon this point. You will recollect that when the fœtal ball, surrounded by its tufted or shaggy chorion, enters the uterus, these tufts or villi penetrate the utricular follicles; and soon becoming vascular by entrance of bloodvessels from the fœtal body, establish sanguineous relations between mother and child; for the maternal vessels situated between the follicles just referred to, rapidly enlarge and surround the tufts on all sides. At a later period this connexion becomes destroyed, except over a limited space, where it becomes much more perfect, and forms the placenta. This organ, when fully perfected, consists of large pouches formed by dilatations of the vessels of the uterine mucous membrane, supplied with blood by the curling arteries of the uterus, into which the fœtal tufts dip by inverting, as it were, their walls. Now if the entire placenta be ripped off from the uterus, the uterine vessels supplying it are at once closed by ligation from the uterine fibres which surround them. But if part of it only be separated, hæmorrhage takes place—1st, from the placental surface which has been lifted, blood entering at its attached portion, and pouring out at that which is detached; and, 2d, from the open mouths of the uterine vessels, which the uterus is not able, from partial placental attachment, to close by ligation.

Varieties.—Generally the placenta is so placed in the uterus that the os may dilate and the child be expelled without its separation being involved in these processes, and it will, under such circumstances, retain its position and the integrity of its attachment, unless some untoward accident, such as a blow or fall, occur to displace it. At other times, however, it is attached to one side of the cervix, or over the entire cervix, so as to prevent the dilatation of this part, through which the child cannot pass as long as it remains closed. Now as the os and cervix must be dilated to permit the passage of the child, and as their dilatation must, under these circumstances, to a greater or less extent, detach the placenta and rupture the utero-placental vessels, it follows, as a deduction, that hæmorrhage thence resulting is not produced by accident, but, *ex necessitate rei*, is unavoidable.

For these reasons, all hæmorrhages occurring during labor have been very properly divided into

1. Accidental hæmorrhage.
2. Unavoidable hæmorrhage.

The second variety, you perceive, is synonymous with placenta prævia, an appellation which defines the unfortunate location of the after-birth which produces it.

Leaving the subject of placenta prævia and its resulting unavoidable hæmorrhage for our next lecture, I will occupy you to-day with the consideration of that variety which is purely the effect of some accident, and which, like every other accident, might, under favorable circumstances, have been avoided.

ACCIDENTAL PUERPERAL HÆMORRHAGE.

Frequency and Prognosis.—You will, I imagine, get a much more correct idea of the frequency of accidental hæmorrhage, by an examination of the reports of one faithful observer, than by averaging a large number of cases collected in the loose and unreliable manner which ordinarily characterizes the accumulation of statistical evidence. Dr. Collins, during a mastership of the Dublin Lying-in Asylum of seven years, had 16,654 births occur under his supervision, and in this immense number only thirteen cases of this variety of flooding were met with; considerably less than one in a thousand.

Of the thirteen women thus attacked, two died, and both after serious operations: one after version, and the other after craniotomy, so that it is by no means proper to conclude that they died from the hæmorrhage. Of the children, one only was born alive.

Thus you will perceive that the accident is not of frequent occurrence, that the prognosis for the mother is good, and that that for the child is decidedly bad.

Causes.—The pathological state causing the flow is, as already mentioned, rupture of the vessels which pass from the uterus into the placenta. The causes which bring about such rupture are numerous, since any kind of violence sufficiently great for the separation of the placenta would accomplish it.

The chief are blows or falls.

Sudden uterine contraction from mental emotion.

Sudden shocks or succussions given to the uterus, as from laughter, vomiting, &c.

Dragging off of the placenta by shortness of the cord, or its repeated winding around the child's neck.

Placental apoplexy occurring near the periphery of the organ.

There are other and less frequent and conspicuous causes, but it would be useless to name them, since, as I have said, any accident which severs the utero-placental attachment would produce it.

Symptoms and Diagnosis.—As the prognosis and more especially the treatment of the two varieties of ante-partum hæmorrhage differ from each other very much indeed, it is of great importance that the accoucheur should determine at once as to which one he has to deal with, and that his decision be as far as possible positive and final. This he will in many cases do without difficulty, but sometimes he will have to remain in suspense for a short period until the progress of the case enlightens him and determines the point.

Denman on this point justly remarks: "Before there is some dilatation of the os uteri, be the discharge ever so profuse, and it may even at this time be excessive, I do not know that it is always possible to tell with certainty whether the placenta is present or not. It may indeed be conjectured that the placenta is there attached by the cushion-like feel of the cervix and lower parts of the uterus." He then goes on to remark how, even after dilatation of the os, a clot of blood may be mistaken for the placenta.

The only reliable means for determining the nature of the flow are these:

In Accidental Hæmorrhage.

(*a*) There will have been no ante-partum loss.
(*b*) Uterine efforts will diminish the flow.
(*c*) An evident cause will generally be found for it.
(*d*) The loss is not generally very profuse.
(*e*) The placenta cannot be touched.
(*f*) Os uteri will be natural to the touch.
(*g*) Placental murmur loudest near fundus.

In Unavoidable Hæmorrhage.

(*a*) There will have been hæmorrhage during the last month or months of pregnancy.
(*b*) Uterine efforts will increase the flow.
(*c*) No cause will be found for it.
(*d*) The loss is often sudden and profuse.
(*e*) The edge of placenta may be touched.
(*f*) Os uteri will be thicker than ordinary.
(*g*) Placental murmur loudest in one or other iliac fossa.

As a little reflection will readily explain to you why these two varieties should be characterized by their respective symptoms, I will not do more than enunciate them. Let me insist, however, upon the importance of an early and positive diagnosis, if such is within the range of possibility. Of all the symptoms mentioned, the presence of the placenta near the os is the most valuable, and this one you must thoroughly test. Do not be satisfied with temporizing with digital examinations if they are not sufficient, but explaining the necessity to your patient, place her quietly under the influence of an anæsthetic, and pass the entire hand into the vagina. If the os is dilatable, pass the index finger well up into the cervical canal, and ascertain to your full satisfaction whether you have or have not a case of placenta prævia to deal with. As a matter of course, if the rational signs point strongly to the supposition that the case is one of accidental hæmorrhage and there is no immediate danger, you would not expose your patient to the annoyance attendant upon this procedure; but far better would it be to err on that side, than by a culpable inactivity to remain ignorant of a point upon the knowledge of which so much will depend.

Treatment.—Accidental uterine hæmorrhage should be treated upon precisely the same principles which should guide us in the management of such an accident taking place in any other part of the body. This you may, at first thought, regard as too general a statement; but as we proceed you will perceive that, although from the nature of the locality from which the flow occurs, the means employed for developing the principles may differ, the principles themselves are identical.

Let us suppose, for example, that a hæmorrhage should occur from any part of the surface of the body, as the result of a wound or abrasion, and let us follow out the principles which one after another would be employed by the surgeon, until he finally succeeds in checking it.

1st. If the flow were slight the patient would be kept perfectly quiet, and an effort made to constrict the mouths of the bleeding vessels by cold and styptic applications, as ice, alum, tannin, matico, etc.

2d. Should these very useful and commonly employed hæmostatic agents fail in making this principle effective, an attempt might be made to cause in the wound the formation of a coagulum, which, extending up into the mouths of the bleeding vessels, might seal them up as is done by plugging the anterior nares (alone or with the posterior), in epistaxis.

3d. Should this fail, a very excellent principle, that of closing the open arterioles by firmly compressing their walls, might be developed by direct pressure, as is done, for instance, in hæmorrhage from the palmar arch, by placing a billiard ball in the palm of the hand, and binding it firmly in its place by a bandage.

4th. Should even this fail, still another and surer one exists in the application of a ligature to the bleeding vessels; and to it the surgeon would now with confidence resort.

Thus, one after another, he has brought to his assistance four principles, each valuable in itself, each differing from the one tried before it, and all capped by one which is as certain in its results as human means can ever be.

Thus, too, in parturient hæmorrhage the obstetrician should act; and he will find that, if the first three of these four principles fail him, he, like the surgeon, will have one left which will prove as certain as the ligature.

In establishing these principles, always be mindful of the pathological state which causes the dangerous symptoms which they are to control; *i.e.* that a portion of the placenta has been torn off from its uterine attachment, and that from its disrupted face, as well as from the corresponding surface of the uterus from which it was torn, the blood is welling forth.

In a case of accidental parturient hæmorrhage, the first indication to be fulfilled is to check the flow by constricting the mouths of the vessels; and this will best be accomplished by confining the patient to bed in the supine posture, and absolutely prohibiting all muscular effort or mental exercise, even that attendant upon speaking; by keeping the apartment cool; by administering cold, acidulated drinks, as lemonade, or water acidulated with the elixir of vitriol; by applying towels soaked with cold water, or vinegar and water, to the vulva and over the uterus, and by prescribing astringents, as tannic or gallic acid in full dose, which being

carried to the bleeding vessels by the circulation, may aid in producing the same result which their local application effects in vascular rupture elsewhere.

If by these means we succeed, we will have good cause for congratulation, for we will have relieved the woman without having in any way sacrificed the chances of her child. If they do not succeed, then we must resort to some other plan which may prove more effectual, and we enter into the consideration of the adoption of the second principle. The only available means at our command for causing a clot to form in utero, under these circumstances, is the tampon or vaginal plug; an agent advised by many, and one which might accomplish the result as perfectly as do the double tampons employed in epistaxis. But there are dangers attending its use, so great, that I must not only guard you against them, but advise an avoidance of this means in parturient hæmorrhage, except in rare and particular cases. I would say in advance, avoid the tampon as a rule, after the seventh month of pregnancy, but employ it boldly, even at full term, in a few exceptional and peculiar cases.

The tampon may be styled one of the most useful and dangerous of our uterine hæmostatics, and it is really curious to see how different and even contradictory is the advice which is given concerning the propriety of its employment. Let me, by an excusable digression, endeavor to fix in your minds this morning a few maxims concerning it.

A plug introduced into the vagina, of sufficient size to fill the canal, acts in uterine hæmorrhage in one of two ways. 1st. Preventing the escape of the fluid which is flowing out of the uterus, this collects, and gradually accumulates in the cavity above. Soon it distends this cavity to its utmost extent; if the fœtal mass is present, insinuates itself between its envelopes and the uterine wall, and at last forcibly dilating the os by distension of the whole organ, produces a powerful expulsive effort which frequently expels child, accumulated blood, and tampon together. 2d. When the uterus is not dilatable by the accumulating blood, this fluid coagulates within its cavity; and the coagulum, beginning to form at the os, and extending upwards towards the source of the hæmorrhage, will often seal up the mouths of the bleeding vessels.

The latter of these results is often very desirable, and to accomplish it no means compares with the tampon. But after the seventh month of pregnancy the uterus is so large that it may contain a sufficient amount of blood to produce death, so that from this period to the completion of labor it is always attended by danger. (I need not insist upon the gross impropriety of the employment of such a means after delivery.)

Thus, then, although the tampon might effect much for us in puerperal hæmorrhage, as a rule it should not be employed; and, in exceptional cases which demand it, should be resorted to only after mature consideration, and its effects be watched with very careful scrutiny. Observe these rules in using it:

Never employ the tampon from choice when there is a possibility of a dangerous internal hæmorrhage.

At full term do not employ it after the waters have been discharged, for then the uterus will accommodate a large amount of blood.

Never employ it at full term after your patient has lost a great deal of blood, or from natural feebleness of body would be endangered by even a slight hæmorrhage.

In a strong woman who has not already lost a good deal of blood, in whom the uterus is contracting well, and whose bag of waters has not been ruptured, I would not hesitate to employ it if other means failed, or from any reason I deemed them inapplicable.

Should the principle which is developed by the tampon be beyond our reach on account of the danger of the means which accomplishes it, or, should it have been unsuccessfully resorted to, how are we to avail ourselves of the third?

You remember that the flow of blood in accidental parturient hæmorrhage is checked by uterine contraction, and that this is so marked as to constitute one of its characteristic symptoms; now let us examine this fact. When the organ contracts, the bleeding surfaces of the placenta and uterus are pressed firmly against the fœtal mass, and thus their open vessels are shut. If we could cause this pressure to be continuous and powerful, at the same time that it was resisted by a hard mass, we would cause the flow to cease entirely, and would be acting exactly as the surgeon does who binds the billiard ball in the palm of the hand. But you may ask how are we to introduce a hard resisting body into the uterus to act as counterpart of the ivory ball? We are supplied with such a substance in the body of the child. Surrounded by the soft and pliable bag of waters, one chief object of which is to prevent its hardness from being perceived by the sensitive uterus, it lacks the feature of resistance which we now desire; but evacuate the surrounding waters by puncturing the bag, and instantly the unyielding body presses against the hæmorrhagic spot, and the principle is developed.

This, however, although often sufficient, is not always so—the pressure not being powerful enough. Under such circumstances, in the case of a palmar hæmorrhage, the surgeon would remove his loose bandage, and apply another which would make all the pressure desirable. And so the obstetrician, by the administration of small doses of ergot, can so force his point of resistance against the bleeding surface as to compress entirely the ruptured vessels and render them impermeable. By these means you not only bring to your aid the principle mentioned, but, to a certain extent, you will establish that which will be mentioned fourth, for the vessels are diminished by the same contractions which press the child against the bleeding surface. According to my experience it is rare for them to fail. In fact, I have never known them do so in true accidental hæmorrhage. Should they do so, however, but one resort remains, and that is ligation of the vessels from which the obstinate current flows. Have we any means by which ligatures may be thus applied in utero? Again bountiful nature comes to our aid, and we have but to use the means which she presents us and our end is accomplished. After every natural labor, were there not some arrangement for checking the flow from the broken utero-placental vessels, a hæmorrhage would occur, but so soon as the uterus is emptied the fibres contract, diminish its size very greatly, and being arranged around the mouths of the vessels as the meshes of a netted pursé are around the finger which is pushed through them, they inevitably close their mouths, and prevent all sanguineous loss.

After having tried in vain, by the development of the three principles mentioned, to accomplish what we wish, naught remains but to empty the uterus, force it into contraction, and cause nature to do what the surgeon does in external hæmorrhage. If the head can be seized by the forceps, employ them; should it be out of their reach, accept of version as the alternative, and deliver promptly. Thus by successive steps the scientific obstetrician advances from mild, harmless, but correspondingly inefficient means, to more dangerous, and proportionally more effectual ones, until he arrives at a point at which he can safely say, "I will by this surely

succeed in staying the flow, and will rescue my patient from its dangers."

But do not despise the more inefficient means because a more effectual one exists. Would you not blame the surgeon, who, for a slight hæmorrhage, should tie the supplying arteries without seeing what might be done by styptics, pressure, etc.?

Keep the most efficient agent in reserve, because it is accompanied by danger for mother and child, and always strive to accomplish your ends by the mildest, least dangerous, and apparently most trifling means. Should you succeed, a host of unthought-of evils lurking like harpies in the shade, may by your moderation be avoided; should you not, then promptly apply the most efficient and most dangerous of your resources, which, like a "corps de reserve," you have kept until the fitting moment.

What has been denominated "heroic practice," often marks the course of the ignorant and unreflecting obstetrician; and although the vulgar may be blinded by its show of energy, decision, and promptness, and led to believe it an evidence of knowledge, it will often bring about consequences alike disastrous and avoidable.

Never lose sight, too, of this fact in treating a complication of labor, that the interests of two beings are intrusted to your care, and that while you are to do all in your power for those of the mother, those of the child are scarcely less imperative. If, then, in the treatment of this accident, you can adopt means which will accomplish both ends, give them by all means the preference over those which, even if more surely effectual in removing the woman from danger, will sacrifice the chances of the child.

The older one grows in obstetric experience, the more convinced does he become that many a woman has died from the unnecessary introduction of the hand into the uterus; that many a uterus has been ruptured by uncalled for violence; and that Herod destroyed not a tithe of the children which have been killed in utero by the reckless use of ergot.

The following is a résumé of the treatment which has been recommended in this lecture, the principle upon which each procedure acts being italicised.

1st. *Constrict the bleeding vessels* by cold to the uterus and vulva, acidulated drinks, astringents, and perfect rest in the recumbent posture.

2d. In case of failure *cause a clot to form in the mouths of the bleeding vessels* by the tampon, should the case be one in which this practice would be safe.

3d. Should this fail, *make direct pressure against the bleeding vessels* by evacuation of the waters, and increase it if necessary by the use of ergot.

4th. None of these means succeeding, *ligate the vessels* by evacuating the uterus, and causing firm contraction.

The last of these means it will rarely be found necessary to resort to in the variety of hæmorrhage which we are considering; for few cases will resist evacuation of the liquor amnii. There are many cases, however, in which it will be desirable not to lose this protective fluid, and in these the two first methods may subserve our purpose.

PHARAOH'S SERPENTS.—Dr. Littlejohn, of Edinburgh, warns the public against the use of "Pharaoh's serpents," as they are called. These toys are a compound of sulphocyanide of mercury. The inhalation of some of these products is highly dangerous; viz. cyanogen, sulphurous and sulphuric acids, bisulphide of Carbon and mercury in vapor. The mass left after combustion is organic matter called "mellor."—*British Medical Journal.*

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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PROSPECTUS.

IN presenting to the medical profession throughout the country the first number of the MEDICAL RECORD, we deem it incumbent upon us to offer a statement of the general plan upon which this journal is to be conducted.

Its object will be to present to the profession a faithful record of the existing state of medical science in every one of its many departments; and as it is more especially intended to meet the wants of the general practitioner, all the different articles published in its columns will be thoroughly practical in their character. With a wide field, and ample facilities for working it up, we earnestly hope to fulfil to the letter this part of our design, thus making the RECORD worthy of the countenance and support of the profession; a journal to which they may at all times look for information, instruction, and edification.

A word with reference to its contents: For the Original and Lecture departments we have been promised contributions from some of the most noted writers and teachers in the profession, the names of some of whom we have the pleasure of announcing in another place.

The abundant material which is constantly accumulating in our large hospitals, in this and other cities, will be from time to time presented to our readers in the shape of accurate reports of interesting cases; at the same time every care will be taken to keep them well informed of all those various improvements and modifications in the treatment of disease which are so frequently made in those great schools for practice and observation.

A carefully prepared abstract of the *progress of medical science* will appear in each number, as well as accurate and trustworthy reports of the proceedings of the different learned bodies. Believing, too, that we shall meet a want long felt, especially among gentlemen who are distant from our large cities, for a notice of *improvements* in *instruments*, we have undertaken to set apart a given space in our columns for that purpose. The Review department will receive our special attention, and all works sent us will be promptly and im-

partially noticed. The news of the day will be given as completely as our means for receiving information from the different medical centres will allow; and in managing this department, no opportunity will be lost for affording full reports upon all matters which are of general interest to the readers of a medical journal. The Lectures, from prominent Professors in the different colleges, will be accurately presented to our readers, as special pains will be taken to have the manuscript reports of the same carefully revised by the speakers themselves before they are submitted for publication.

The current medical topics of the day will be freely and independently discussed; and no effort on our part will be spared to render ourselves well informed with reference to them, in order that we may be able to present such views to the profession as a body, as shall be considered worthy of serious attention on their part. In all this, our simple aim shall be after truth; and in our efforts to expound the great principles upon which our relations to each other and to the community are to be based, we shall look to the Code of Ethics adopted by the American Medical Association as the grand standard by which all our assertions must be measured. Impartial to all, unjust to none, it is our purpose, so far as we are able to understand the right, not to hesitate, on the one hand, to point out the way which, by the correction of certain abuses, may lead to a still higher development of professional excellence; nor to be backward in upholding the claims and discussing the merits of the various vexed questions which are ever arising to claim our attention. Committed to the interests of the profession as a whole, it shall be our constant endeavor to keep the columns of the RECORD free from any element that may savor of cliqueism or party spirit; and in the discussion of all subjects, great and small, to exercise that spirit of charity and honesty which must always attach itself to the side of truth, and commend itself to the sanction of every independent thinker.

Believing that a plan thus generally carried out will meet the requirements of a standard medical journal, we submit it as such to the profession for their approval, earnestly soliciting from them any additional suggestions which might tend to increase its usefulness.

THE coming meeting of the State Medical Society, to be held at Albany, will no doubt be largely attended, and the session, from what we can learn, promises to be as interesting and profitable to all concerned as any of the previous ones. This society has, by the united action of its members, already gained for itself a reputation for usefulness which is second to none other of its kind; and by the continued efforts which are now being made in its behalf by the representative men from the different counties of the State, it bids fair to increase still more its enviable reputation. The attendance of the members and delegates has been of late years markedly on the increase; and many who in times past were content to stay at home and allow others to take part in the deliberations of the body, are now to be numbered among its most earnest workers. We sincerely hope that this interest will so continue to develop itself, that more of the prominent physicians from our large cities may be induced to be present. The *Transactions* of this body have, perhaps, a wider circulation, not only among the general profession, but among non-professionals as well, than any other similar publication. This insures for every author of a paper a large number of readers, and should of itself stimulate more of our medical writers to contribute to its pages. The different volumes of the *Transactions* that have been issued for years past, while they have tended to reflect credit upon the body from which they emanate, are nevertheless susceptible of vast improvement in reference to the character of many of the papers which have appeared in them. We sincerely hope that this improvement will be made in the volume which shall represent the doings of the body during the coming meeting, and that every care will be taken to exclude all articles which do not come up to the required standard. If this be done, more will be stimulated to contribute to the enrichment of its pages, and in the end all will be more substantially benefited.

WE would not be doing justice to a very important movement which has lately been made in this city for the benefit of the profession, if we did not take the first opportunity offered us of giving some account of its history. We refer to the New York Medical Journal Association. About a year ago, a number of the prominent medical gentlemen of New York assembled at the house of Dr. ISAAC E. TAYLOR to discuss the propriety of establishing a "journal club" on a large scale. After numerous meetings and lengthy discussions, the Association was formed, and by liberal contributions on the part of the substantial members, a reading-room was established, and the various journals—English, French, and German—subscribed for. It has now been in existence for more than a year, and for the success which has attended the effort, too much praise cannot be given to those few who, by their exertions, have succeeded in placing it where it now is. We understand that thus far, financially, it is safe; and from the favorable indications which are constantly becoming manifest, and from the very encouraging endorsement which it is receiving from the profession of this city, that there is before it a prosperous future.

A very pleasant feature connected with the doings of this Association, has been the occasional "Re-union" of its members. At these times invited guests are also present, and there is every opportunity and inducement offered for the freest social intercourse. The busy practitioner for a while forgets his patient, and the surgeon is content for the time to think of something

else than his last operation; and all, with one accord, seem bent upon entertaining each other. The younger practitioner is taken by the hand and made to feel at home among his fathers; and an opportunity is thus afforded him of cultivating the acquaintance of men whose opinions he has learned to respect, and whose examples he is anxious to follow. These entertainments are rendered still more pleasant and profitable by the occasional presentation of subjects of interest by gentlemen who kindly volunteer their services for the occasion. At the last "Re-union," held January 25th, some very interesting remarks were made by Dr. RUFUS KING BROWNE, on the application of the microscope to medicine, following whom, Dr. NOYES entertained all present with the history of the binocular ophthalmoscope, and took occasion, in connexion with it, to refer to some very curious phenomena associated with binocular vision. The entertainment closed with a suitable collation, and every one went away satisfied with what he had seen and heard. The profession in this city need just such an Association, and they should not allow it, for want of the proper support and encouragement, to die out. We wish it that success which it really deserves, and which we have no doubt it will attain.

THE establishment of ophthalmic and aural clinics during the past winter in connexion with our different medical colleges in this city, may be regarded as a very important step in the right direction in affording the student of medicine increased opportunities for becoming acquainted with this most important class of diseases. In the COLLEGE OF PHYSICIANS AND SURGEONS this department has been taken charge of by DR. C. R. AGNEW, in the UNIVERSITY MEDICAL COLLEGE by DRS J. H. HINTON and D. B. ST. JOHN ROOSA, and in the BELLEVUE MEDICAL COLLEGE by DR. H. D. NOYES. These, we understand, are all in successful operation, and bid fair to become permanent features in our college courses. We hope this example will be followed by the other medical institutions throughout the country.

NEW medical journals are showing themselves from all sections of the country, and medical journalism is beginning to receive an amount of attention which it has for a long time needed. With the commencement of the year the following periodicals have made their appearance: The RICHMOND MEDICAL JOURNAL, edited by Drs. E. S. Gaillard and W. S. McChesney; the GALVESTON MEDICAL JOURNAL, edited by Dr. Greensville Dowell; and the CINCINNATI JOURNAL OF MEDICINE, edited by Drs. G. C. Blackman, Theophilus Parvin, and Roberts Bartholow.

IN order to correct any seeming anachronism, we would state that this number is issued one month in advance of its date.

Reviews.

THE PRINCIPLES OF SURGERY, by JAMES SYME, F.R.S.E., Surgeon in Ordinary to the Queen, in Scotland; Professor of Clinical Surgery in the University of Edinburgh, etc., etc. To which are appended his treatises on the "Diseases of the Rectum," "Stricture of the Urethra and Fistula in Perineo," "The Excision of Diseased Joints," and numerous additional contributions to the pathology and practice of surgery. Edited by his former pupil, DONALD MACLEAN, M.D., L.R.C.S.E., Professor of the Institutes of Medicine, and Lecturer on Clinical Surgery, Queen's University, Canada. Philadelphia: J. B. Lippincott & Co., 1866. 8vo. pp. 880.

THE work before us is a condensation of the author's lectures on the principles of surgery, and as such it commends itself to every student of that department who is desirous of becoming acquainted with the views of a master. It aims only at giving a substantial outline of the science, leaving the reader to fill up the gaps by his subsequent studies. This is professedly the object of the author, and one in which he has succeeded. The character of the work, as a whole, is, in spite of the old-fashioned views of the author, which here and there crop out, eminently practical. The style of the work is very concise, elegant, and forcible, and really forms one of its most attractive features. The appendix, containing the scattered writings of the author, and collected by the editor, considering the valuable amount of interesting and useful information contained in it on the different important surgical questions, is of itself worth the cost of the whole volume. Embodied in this portion, which occupies a space of over three hundred pages, we have a practical and valuable monograph on "Diseases of the Rectum;" one on "Stricture of the Urethra;" besides a general collection of miscellaneous cases. The chapter on amputations is one of great interest and practical value; and not the least important of its features is a full and complete description of the author's method of removal of the foot at the ankle-joint. This operation, since it was first devised by the author, has been very successfully and extensively practised on both sides of the Atlantic; and notwithstanding the attempts at improvement upon it which have been made, it is at the present day the one most in favor with all the leading operators. The author's operation for impermeable stricture by external incision, detailed in the appendix, is also one which has met with great favor, and, by its frequent and successful performance, has given to Professor Syme almost as much reputation as has for a long time attached itself to his method of ankle-joint amputations.

The work is elegantly got up by the publishers, printed in clear type, on good tinted paper, with several first-class wood cuts.

THE PRACTICE OF MEDICINE, by THOMAS HAWKES TANNER, M.D., F.L.S., Member of the Royal College of Physicians, Vice-President of the Obstetrical Society of London, etc., etc. From the fifth London edition, enlarged and improved. Philadelphia: Lindsay & Blakiston, 1866. 8vo. pp. 835.

THIS work is virtually an enlargement of the author's manual, which has been so long and favorably known to the profession. A large amount of valuable and interesting matter has been added, which, although it swells the volume to one of large size, makes it a more complete work. Considering the great variety of subjects discussed, it cannot be expected that each should receive that amount of attention and space which it should justly claim in a more comprehensive treatise on the practice of medicine.

It is very conveniently arranged, and fulfils its intention to the letter, in giving to the student and practitioner a work in which he can obtain, in the smallest possible space, all the important practical information with reference to any particular disease. Although it can hardly be called a manual, it still possesses all the attractions of such a work, while at the same time it claims for itself most of those advantages which properly belong to an exhaustive treatise. There is hardly a disease in the whole domain of practical medicine which does not receive its share of attention, and the student can always go to the work with an assurance of finding what he wants. We need hardly say that the publishers have exercised their usual good taste in getting up this work.

Clinical Lectures on the Principles and Practice of Medicine, by John Hughes Bennett, M.D., F.R.S.E., Professor of Institutes of Medicine, and Senior Professor of Clinical Medicine in the University of Edinburgh, etc., etc. Third edition, with five hundred and thirty-seven illustrations on wood. New York: William Wood and Company, 61 Walker st., 1866. 8vo. pp. 1004.

The previous edition of this work on the practice of medicine has been received everywhere with favor, and has given Professor Bennett a reputation as a teacher and writer which is second to that of no physician in the world. He has the enviable faculty of blending together so perfectly the theory and practice of our profession, that one is almost at a loss to know where to draw a dividing line. Convinced, by his long and varied experience, of the wants of the medical man, he has successfully striven to give a complete treatise on the practice of medicine, and does not hesitate to assert boldly his views upon the different vexed questions which are so constantly arising. His remarks under the head of General Therapeutics, which are some of the many important additions to the last edition, stamp him not only as an acute observer, but as one who, in the earnest search after truth, desires to picture to the mind of his readers, not only all that has actually been done in the progress of the healing art, but what remains to be done. Every new improvement receives its share of attention, and his teachings with reference to the true applications of the microscope, the stethoscope, and the laryngoscope to practice, are of themselves of sufficient value to induce every one to become the possessor of the work.

The new edition has added to it about three hundred pages, many subjects being entirely new, while others have been for the most re-written. Every section has been thoroughly worked up, and every recent improvement in practice has been freely and fully discussed, which altogether stamps the work as one which is a truthful exposé of the present status of our science. In spite of the many additions, this edition is not increased in bulk compared with the last, as there have been many curtailments and condensations made, and closer type employed; the only difference being a slight enlargement of the page. We commend this new edition to every one who is anxious to possess a complete treatise. The execution of the work is fully equal to that of any of the former editions.

The Preparation and Mounting of Microscopic Objects, by Thomas Davies. New York: William Wood & Co., 61 Walker street. 12mo. pp. 143.

This little work combines, in a very attractive form, an account of all the approved methods of collecting and mounting microscopic objects. It is divided into seven chapters. The first chapter treats of the "Apparatus;" the second gives full and practical directions or mounting objects dry; the third for mounting in Canada balsam; the fourth gives an account of preservative fluids; the fifth details directions for making sections and dissections; the sixth describes the different kinds of injections to be used; and the seventh closes up the work by a reference to miscellaneous matters. It is a manual that is designed more particularly for the amateur microscopist; as a consequence, the methods of preparation of objects interesting to a physician are only incidentally alluded to. Those who are interested in microscopy outside of its application to medicine, will find this a useful and valuable work.

Chloroform, its Action and Administration, by Arthur Ernest Sanson, M.B., London, late House Physician and Physician-Accoucheur Assistant to King's College Hospital. Philadelphia: Lindsay & Blakiston, 1866. 12mo., pp. 274.

We have read this book with a great deal of interest and satisfaction, and feel assured that it is the most comprehensive and practical of any that has heretofore treated of this all-absorbing topic. The author, after giving an interesting history of the discovery of chloroform, proceeds to treat of the different effects produced by its inhalation, the dangers attending its use, the precautions to be taken in its administration, the most approved methods for resuscitation in cases of accident; and closes the volume by occupying the four last of the twenty chapters composing the work, in the consideration of the practical application of anæsthesia to surgery, obstetrics, practical medicine, and dentistry. Every part of the work is thoroughly practical, and clearly proves to the reader that the author understands perfectly what he is talking about. The profession has long been in want of just such a work. We cannot commend it too highly.

Reports of Hospitals.

NEW YORK HOSPITAL.

THREE CASES OF POPLITEAL ANEURISM SUCCESSFULLY OPERATED UPON BY LIGATION.

Reported by Thomas T. Sabine, M.D., Resident Surgeon.

I. Popliteal Aneurism—Unsuccessful Employment of "Flexion."—Subsequent Ligature of Femoral.—(Service of Dr. Gurdon Buck.)—Richard J. Curl, aged 27, cook, colored; was admitted to the hospital, May 2d, 1865, with an aneurism of right popliteal, of which he gave the following history:

About a year before admission, he noticed in right ham a small pulsating tumor about the size of a hickory-nut; his attention being called to its existence by the pulsation felt in crossing one leg over another. He could assign no cause for its origin. There was no pain or increase in the size of the tumor until four weeks before admission; when, without any known cause, it began to increase somewhat rapidly, with pain and swelling, seated chiefly in the calf of the leg. The pain and swelling have since greatly diminished. On examination there was found a pulsating tumor, the size of a hen's egg, occupying exactly the middle of right popliteal region. Auscultation revealed a distinct bruit. There was some enlargement of the superficial veins of the affected leg, but no œdema. An aortic systolic murmur could be heard.

On May 11th, the leg was flexed upon thigh to an angle sufficient to cause all pulsation in tumor to cease, and retained in that position. On May 25th, the above

treatment was discontinued; the extreme pain and constitutional irritation induced, notwithstanding the free exhibition of opium, having prevented its continuous application.

On June 1st, the femoral was ligated by Dr. Buck in the usual manner and situation, and the limb subsequently enveloped in cotton batting.

On June 8th, the tumor was about one-half its original size, and firm. The temperature of the limbs had remained equal. There had been some pain and slight constitutional disturbance, which soon subsided.

On June 26th, the ligature came away, and on the 29th the wound had closed.

II. Popliteal Aneurism—Unsuccessful Employment of Flexion—Subsequent Ligation of Popliteal—Recovery.—(Service of Dr. Thomas M. Markoe.)—Reuben Harris, aged 62, waiter, colored; was admitted to the hospital on July 3d, 1865, with an aneurism of left popliteal, of which he gave the following history:

On April 4th, 1854, the left femoral was ligated by Dr. Maxwell, of this city, for a popliteal aneurism. The tumor entirely disappeared, and patient returned to his employment. He had no further trouble until the July riots in 1863, when he was maltreated, being beaten about the left leg, etc., since which time he has been unable to use the limb perfectly, walking with a limping gait.

In the beginning of November, 1864, he began to experience pain at the site of former disease in going up or down stairs. This increased to such a degree that about the middle of the following month he was obliged to give up his employment. At about this time he noticed a small tumor, in the left popliteal region, which had steadily increased in size up to the time of admission.

An examination showed the existence of a pulsating tumor the size of the fist, traversing the inner aspect of which, an artery of considerable size could be felt. Auscultation revealed a distinct souffle, which, it was thought, pressure on the popliteal below the tumor rendered less clear. The same pressure seemed to diminish the pulsation. There was a distinct diastolic aortic murmur. Pulse irregular.

No special treatment was adopted until July 20th, when the tumor, meanwhile, having undergone no increase in size, it was decided to treat it by flexion, as all pulsation and sound ceased in tumor when the leg was brought to about a right angle. This plan was pursued until August 7th, with no beneficial result, when it was considered best to ligate the nutrient artery.

The requisite incisions having been made, Dr. Markoe found that the aneurism had been developed from the anterior aspect of the artery, which had been pressed backwards so as to run over the posterior surface of the tumor. A ligature was applied a short distance from the sac, when all pulsation and souffle instantly ceased. The limb was then ordered to be kept somewhat flexed, and lying upon its outer side.

On August 30th, the ligature came away. The limb had maintained its temperature well, and no pain had been experienced since the operation. On October 5th, the resulting ulcer had quite closed, and patient could flex and extend the leg almost as well as before the appearance of the tumor, which, very much diminished in size, could be felt consolidated and pulseless.

III. Popliteal Aneurism—Ligature of Femoral.—(Service of Dr Gurdon Buck.)—John Smith (colored), 27, hotel porter; a strong healthy mulatto, was admitted to the hospital, Jan. 4th, 1866, suffering from an aneurism of left popliteal, of which he gave the following history: About a month before admission, while jumping from the hotel coach to the ground, he experienced a feeling as if something had given way in the left popliteal region, accompanied with a "cramp," which soon subsided, giving place to a dull, aching pain, which increased but little up to a few days before admission, when it became much more intense. At the time of this increase he first noticed the tumor.

An examination in both the upright and recumbent posture detected a slight fulness, hardly perceptible, in the left popliteal region.

On handling the part, however, a tumor the size of a turkey's egg, and occupying the lowest portion of the space, could be felt pulsating with a slow, heaving, expansile movement, lifting and separating in a very characteristic manner the fingers, placed at different points. The diastolic impulse, mentioned by Gendrin as sometimes occurring, could not be perceived. Auscultation revealed a murmur resembling very perfectly the puffing of a distant steam engine. Pressure applied to the iliofemoral artery caused the tumor to subside, and at the same time the pain in the limb to cease. There was œdema, not very marked however, about the limb below the knee, which was noticed about the same time as the tumor. The pain, which was considerable, and on the increase, was referred principally to the ramifications of the internal popliteal nerve. Heart-sounds were natural. Pulse was regular and slow—about sixty-four.

On January 9th, the tumor had not increased perceptibly, though the pain was more severe and continuous, and the œdema had become rather more marked. Limb had been kept moderately flexed, as being the most easy position. Complete extension greatly increased the pain; and flexion to such a degree as to exercise any effect upon the tumor, though kept up only a few moments, was found to be unendurable.

A ligature was applied to the femoral at the usual point, by Dr. Buck. Pulsation in tumor instantly ceased. Limb enveloped in cotton batting and kept somewhat flexed on outside.

January 17th; there has been no constitutional disturbance whatever. Wound closing well. Ligature still *in situ*. Cotton was kept on only for first day or so, the limb having throughout maintained its temperature well; the thermometer at no time or point indicated more than one-half degree difference. The tumor has diminished to at least one-half its original size, and is quite firm. The œdema of limb disappeared soon after the operation, and the relief from pain has been complete. No pulsation as yet in the posterior fibial.

The above cases, occurring within a period of nine months, are interesting in their bearing upon the subject of the treatment of aneurisms occurring in the neighborhood of joints by position.

In the two first it was fairly tried and failed; and in the third it was evidently altogether inapplicable.

BROOKLYN CITY HOSPITAL, N. Y

I.—GUNSHOT FRACTURE OF SKULL—DEATH. II.—GUNSHOT WOUND OF CHEST—RECOVERY.

Reported by Charles Fox, M.D., House Surgeon.

Case I. Gunshot Fracture of Skull.—Death.—(Service of Dr. De Witt C. Enos)—W. H. Russ was brought to the hospital on the 23d of December, after attempting to take the life of his *protégé* and to commit suicide. He was a slightly-built, delicate-looking man of 32; a clerk by profession, residing in New York. After firing three barrels of his revolver at the young lady, he discharged the two remaining shots into his own head, aiming at the right eye. Finding that he was not even stunned by the shots, he rushed to the

foot of Atlantic street and leaped into the East river; not noticing in his haste, that the tide was out, and that there was not above a foot of water in the slip. He then climbed from his unpleasant situation without assistance, and was soon afterwards arrested by the police, wandering about the streets with no apparent purpose. When brought to the hospital, about two hours afterwards, he was much chilled from the effects of the water, but soon recovered his natural temperature on being covered up with blankets and well rubbed. One ball had entered just outside of the superciliary ridge on the right side, and the second half an inch below the corner of the eye, which was pushed forward and distended. The hæmorrhage, after admission, was very slight; but his clothing was saturated with blood. His demeanor was singularly calm;—he said nothing voluntarily, but answered questions readily.

The following morning Dr. Enos enlarged the wounds and removed some loose pieces of bone, and the upper ball. After the operation, the finger could be readily introduced into the orbit through the opening in the frontal bone. A few small arteries were tied, the edges of the wounds brought together by sutures and adhesive strips, and a water-dressing applied.

The condition of the patient remained much the same until the 30th. The pulse, skin, and tongue were normal. He slept comfortably with an anodyne, and felt hardly any pain, except a soreness of the neck and back. The wounds looked well, and the pus from them was healthy. He refused all food except a few spoonfuls of tea a-day. On the 30th, he became slightly delirious, and had a determination of blood to the head —three arteries in the wound began to bleed, but were secured before any damage was done. The next day, the discharge from the wounds became offensive, and a low delirium set in. He continued to answer questions intelligently, but muttered to himself constantly. The tongue was protruded slowly and with great difficulty; the surface was covered with perspiration; the pulse averaged about 110, and was very weak; and the pupil of the uninjured eye was contracted. When touched, he screamed from pain in the back and neck. He no longer refused food, but swallowed with avidity everything given him These symptoms were soon followed by subsultus tendinum, and he died at 3 A.M. on the 3d of January.

The *autopsy*, thirty-three hours after death, showed that the upper ball had broken out a piece of the frontal bone, as diagnosed. The lower ball had chipped out a piece of the malar bone in passing, and struck the roof of the orbit just above the optic foramen, whence it glanced down and comminuted the inner wall of the orbit, imbedding itself in the superior maxillary. At the point where the roof was struck, a fracture was produced, and a fragment of bone was found pressing upon the dura mater, which was separated from the bone by a small clot. At the point of injury there seemed to be no lesion of the brain; all its substance being firm and white, except in one spot near the right ventricle, where it was somewhat disorganized. The membranes were very much congested, and pus was found filling the ventricles and spinal foramen. The cerebellum was thickly covered with coagulable lymph, closely adherent, and a few shreds were found over the hemispheres. In the anterior maxilla was a small clot.

II. Gunshot Wound of Chest—Hæmoptysis—Recovery. —(Service of Dr. De Witt C. Enos.)—J. R. G., aged 22, was brought to the hospital, December 9th, 1865, with a pistol-shot wound in the left breast, inflicted by himself. The ball had entered between the fourth and fifth ribs, an inch inside of the nipple, and emerged between the same ribs through the latissimus dorsi and teres major muscles, passing through the lung. Immediately after the receipt of the injury he raised bright-red blood, though not enough to cause any apprehension. He felt little or no pain, and though he coughed frequently, did not seem to be suffering from it. The wounds were covered with greased lint, and the patient was kept as quiet as possible.

For two days he had a slight traumatic fever, which disappeared on the third, from which time his improvement was rapid. He continued to raise blood in small quantities until the 16th, when the hæmoptysis ceased, though the cough continued a day or two longer. The chest was carefully explored daily, and no abnormal signs were at any time detected. On the 19th he considered himself well enough to leave the hospital; and as the cough had entirely ceased, the wound of exit had closed, and the wound of entrance was filling up well, he was discharged. On the 2d of January he called at the hospital and reported that he was still improving, and had had no bad symptoms.

MEDICAL CASES FROM SAME HOSPITAL.

Case I.—Cancrum Oris—Recovery. Case II.—Softening of Brain from Thrombus—Hemiplegia—Death.

Reported by Francis H. Atkins, M.D., House Physician.

Case I. Cancrum Oris—Recovery.—(James Crane, M.D., Attending Physician.)—George K., aged 6, native of U. S., German parents. Admitted Nov. 3, 1865. History from parents. Was taken four weeks before with typhoid fever. After two weeks, when the disease was abating, a dark spot appeared on the inside of the right cheek. Notwithstanding the remedies applied, the spot increased rapidly in size until a large portion of the cheek became sphacelated. There was no knowledge of the administration of mercury. The child had always been very healthy. On entering the hospital, the whole thickness of the cheek, including mucous membrane and integument, was found destroyed over an area measuring one and seven-eighth inches vertically, and two and one-fourth from before backwards. The slough, which had not yet separated, was black, and evolved an extremely disagreeable odor.

The angle of the mouth and a portion of the lower lip were involved. The gums appeared sound. The adjacent tissues of the cheek were indurated and much thickened. There was no pain. There was much emaciation and physical weakness. The skin was very anæmic. Breath foul. The little patient's appetite was excellent. Pulse 144, rather weak.

Treatment.—A yeast-poultice was applied, and the cheek was washed with Liq. sodæ chlor. Application was made at once of concentrated hydrochloric acid to the edges of the opening, to prevent the further spread of the gangrene.

As the mouth could be opened but a little way, it was almost impossible to apply the acid to the inner side of the cheek without touching the gums. Ferri pyrophos. gr. iv.; Tr. cinch c. ʒj.; and Potassæ chlor. gr. v., was ordered four times a day. Wine ʒiv to ʒvij. daily. Plenty of beef-tea, milk, etc., and meat as soon as it could be masticated. The fetor was relieved at once. On the 6th nearly the whole of the slough had separated, exposing the teeth and tongue.

The next day all the slough was removed from the cheek, leaving a clean, granulating surface; but along the lips the gangrene was still extending.

Nov. 10th.—The opening measured two inches by two and one quarter. 11th.—Septum and alæ nasi attacked. 13th.—Cheeked on lower lip. Still slowly advancing

on upper lip. Pulse 120, weak. General condition good. 15th.—Checked on upper lip. Removed the last slough. 16th.—A clean granulating surface now remained on lips and cheek, measuring two and a half by two inches; the gangrene having extended, since entering, almost only in the direction of the lips. More than half of each lip was destroyed. The septum and alæ nasi had been affected for about one-eighth of an inch.

The strong hydrochloric acid was applied daily until the 15th, and to the action of the acid is chiefly attributed the checking of the gangrene. Had it been applied even more freely than it was, perhaps the sphacelus might have been arrested much sooner.

The child's appetite and digestion remained remarkably good throughout.

On the 20th he was so much improved that he was removed to his home, where he was afterwards seen by the reporter. The tonic treatment was continued. Dec. 2d.—General health excellent. Gained much in flesh and strength. Running about, playing; ulcer looking well; had contracted; measured two inches by one and two-fifths. Several teeth loose. Some necrosis and suppuration in alveolar processes; deeper in the superior maxilla, from which a piece of bone three-quarters of an inch long was removed. This was probably caused by the acid. 23d.—Ulcer one inch by one and a half. The molar teeth above and below had come away. Suppuration still in the superficial portions of the bones. 31st.—The irritating discharge from the diseased bone prevents the entire healing of the ulcer, especially at its lower edge. The thickness and induration of the cheek have subsided, and the child opens his mouth easily, and is able to take food and drink readily without any of it escaping through the aperture in the cheek. Health remains good.

When the irritation from the bone has ceased, and the ulcer is quite healed, a good opportunity will be afforded for a autoplastic operation.

It is impossible to state whether or not the chlorate of potassa exerted any influence towards the recovery.

Case II.—Softening of the Brain from Thrombus, resulting in Hemiplegia and Death.—(Services of H. S. Smith, M.D., and James Crane, M.D.)—Joseph T., seaman, aged 29, native of England. Admitted Oct. 2, 1865. History meagre. A friend said that the patient had been feeling poorly for a few days, and was lying down, when he suddenly lost power of the whole right side, suffering a temporary unconsciousness. No traumatic cause. No exposure to heat or effects of alcohol. Never had rheumatism. Had no premonitory head symptoms. On admission, had facial paralysis; face drawn to left side; tongue turned to right when protruded; partial loss of power in right orbicularis palpebrarum; partial loss of power of articulation; voice very thick; has good sensation and warmth on right side as well as on left; inclined to somnolency; passages natural.

Until Nov. 13th he improved, so that the tongue was protruded more directly. He could move the leg and foot a little, and had made some slight movement of the arm. The bowels were generally very sluggish, but when freely moved, the patient was much brighter. The inclination to sleep continued.

Nov. 13.—A change occurred. The *left* side of his body became cold, while the right side retained its natural warmth, and had increased power of motion. No loss of motion on left side. 14th.—Very dull. Did not respond when addressed. Left conjunctiva inflamed. Bowels inactive. 15th to 17th.—Comatose. Respiration stertorous and labored; face flushed; head hot. Body motionless. 18th.—Died without change of symptoms.

Autopsy.—The two middle cerebral arteries were found occluded by firmly adherent clots at points close to their origin from the internal carotids. Arteritis had existed in each vessel, leading to thickening of the walls, and the formation of a thrombus. The clot on the left side was larger than the other, and quite pale; that on the right side was dark, and extended a short distance into the anterior cerebral artery. By the microscope no atheroma was found in the arterial walls. The left corpus striatum was softened, and of a darker color than is usual.

BELLEVUE HOSPITAL

PROF. F. H. HAMILTON'S CLINICS.

I. Cheiloplastic Operation. II. Traumatic Arteritis of Elbow.—Amputation.

Reported by J. Winslow.

Wednesday, January 3, 1866

I. *Cheiloplastic Operation.*—J. F., æt. 33, laborer, contracted syphilis fifteen years ago, which resulted in subsequent loss of alæ and columna nasi, part of velum palati, part of superior and whole of inferior labium. The saliva was constantly escaping, and this was the patient's chief annoyance. Dr. Hamilton thought the constitutional disease was eradicated, the indolent ulcers on the face being probably dependent upon tension of the skin from contraction of old cicatrices. He proposed to restore the lower lip, and remarked upon the operation as follows:

"This is among the most difficult of anaplastic operations, from the impossibility of supporting the upper edge of the flap, which, accordingly, always contracts; a strip of skin an inch in breadth often shrinking to a line or two. I shall vary the incisions somewhat from any I have yet made or seen, with the object of leaving the gaps in the integument distant from the mouth and towards the sides, that their cicatrization may not draw down its angles."

Operation.—Patient etherized.—The upper margin of remains of lower lip was first refreshed, when an incision was made, passing on either side, from just above angle of mouth, first slightly upwards, then successively outwards, downwards, and inwards, to a point one inch below mental foramen, forming a circular arc of about 240°, with a radius of $1\frac{1}{2}$ inches, and centre at proximate angle of mental process. The flaps, embracing whole thickness of cheek, were dissected up, as far as anterior border of buccinator, and thence became more superficial. Facial arteries sacrificed. Parts very vascular. These flaps were slid around so as to bring their margins consecutively, first, upon scarified edge of lip, next, together in median line; and finally, into the position of the lost lip. The flaps in integument left about half an inch anterior and inferior to angles of jaw. Silver sutures were then inserted, after which a simple cerate dressing, with a light compress, was applied. "It is impracticable to secure a covering of mucous membrane for the new lip; but as the upper lip is not abraded, there is no danger of adhesions between the two. As the flaps are formed partly of cicatricial tissue, we may anticipate a little sloughing.

"In a former case of cheiloplasty, in which also a necrosed portion of the inferior maxilla required removal (the effect of homœopathic treatment), I slid the flaps from below upwards, in the direction opposite to that of the present operation, and, after securing them together on the median line, firmly stitched their lower

portions to the alveolar periosteum. The resulting lip did not completely cover the teeth, but served to retain the saliva.

"There are three principal methods to be adopted in plastic surgery—1, by sliding; 2, by torsion; and, 3, by transplantation. I have operated by the last method in seven cases, for the cure of intractable ulcers of the leg, taking the skin from the other leg, and with complete success. Some ulcers are persistent from constitutional cachexia, but others from deficiency of integument. New skin is formed only from the margin of the old, and will not extend from this beyond an inch or an inch and a half. To cover larger abrasions, the cicatrix contracts; and where a limb is completely denuded, no attempt is made at repair. Asserted exceptions to this rule are not well established."

SATURDAY, JANUARY 6, 1866.

Traumatic Arthritis of Elbow.—Amputation.—W. D., æt. 28, sailmaker. Admitted Dec. 22d. Contusion of left elbow, by recoil of a Parrot gun, July, 1865, followed by swelling about the joint, with persistent stiffness and lameness. Three weeks ago the inflammation suddenly increased, and suppuration occurred. At present there is much debility, with considerable irritative fever, which is rather increasing.

Ether administered. Exploration reveals caries and necrosis of all the articular surfaces; integument moderately healthy. Resection attempted by an H-incision. Humerus sawn immediately above condyles; ulna below olecranon and coronoid processes, and above insertion of brachialis anticus; radius above bicipital tuberosity; muscular attachments carefully preserved; exposed cancellated tissue of humerus and ulna apparently healthy; radius shows osteo-myelitis, and is again divided three inches lower, with like result. Amputation is then decided upon and performed. Antero-posterior flaps from middle third of arm; bone sawed at junction of middle with upper third, where medulla is found softened, though of normal color. Three ligatures, silk sutures, cerate dressing, and roller.

Dissection of the amputated limb disclosed a sinus extending along the dorsal aspect, or inner side of radius, for its whole length, with a large collection of pus near carpus; radial periosteum easily detached; ulnar unaffected. Prognosis unfavorable; but amputation gives the only chance for recovery. Flap operation performed, because the patient's condition demanded a speedy removal of the ether.

"The muscles, though apparently redundant, will retract soon after the effect of the ether has ceased. For Petit's tourniquet the pad should be a firm flat compress, which is more readily adjusted and less liable to displacement than the roller of late so much employed. Place it, if possible, under the frame.

"Cases favorable for resection are those in which the caries is quite limited, and there is little inflammation of the soft tissues, as often in strumous children. Here this operation saves the patient from the dangers of protracted suppuration; and the resulting arm is more serviceable than the anchylosed limb, which always must be expected, in the event of recovery, without surgical aid. Cases of simple but persistent synovitis, with limited ulceration, often do well by merely laying the joint freely open; the synovial membrane soon losing its secreting character and throwing out granulations. Anchylosis is the usual result; but limited motion may sometimes be obtained. Resection is less dangerous than amputation only when it demands less extensive division of tissue. Where the surfaces exposed by the two operations would be equal, the former is perhaps the more hazardous. At the *shoulder-joint* military practice has, in my experience, shown rather greater mortality after resection; which I attribute to the deep burrowing of pus liable to occur after gunshot injuries of this region. At the *elbow* both operations have given, perhaps, about an equal percentage of recoveries. At the *hip*, military statistics, though not decisive, slightly favor resection. The conditions of military and of civil practice here widely differ. After a wound, hæmorrhage and inflammatory effusion may rapidly distend the thigh to double its normal size; the incisions must be large and deep, and are attended, usually, with severe hæmorrhage; the enucleation of the bone, also, from its periosteum is difficult and tedious. In coxalgia the parts are atrophied, requiring a comparatively small incision, and the periosteum is already separated. Of nine cases of resection of the *knee-joint* reported during the war, eight ended fatally, and the successful operation was one of small extent. The Crimean experience gave no successful cases. Amputation is here by no means so dangerous; but were it equally so, it should still be preferred, a Hudson's leg being far better than a stiff knee; and anchylosis is the only favorable issue of excision, as the attempt to get motion would generally compromise life. Many years ago I called attention to the advantages of resection in *compound dislocations of the ankle-joint*. The ancient rule was to leave the luxation unreduced, with all its attendant deformity, lest fatal consequences should ensue upon its reduction. And, indeed, the dangers of this were hardly exaggerated. The soft tissues are not only lacerated, but terribly contused, by the forcing through them of the broad smooth bone. Intense inflammation is sure to supervene, producing contraction of all these tissues—which again reacts to increase the inflammation—and ending in exhaustive suppuration, gangrene, or tetanus. The resection of an inch or an inch and a half of the tibia relaxes the parts, putting them in a favorable condition for repair. The limb thus obtained is more nearly straight, and the liability to anchylosis is greatly diminished; while in every instance I have known of recovery after simple reduction of a compound dislocation of the ankle-joint, anchylosis has been nearly or quite complete. In none of the resected cases has there not been considerable freedom of motion, and in many—*e. g.* two of my own—this is almost perfect.

Progress of Medical Science.

Removal of the Arm, Clavicle and Portion (remaining from a previous operation) *of the Scapula for a Recurring Tumor*, by Mr. Fergusson.—The subject of this operation was a young woman, who, in Jan. 7, 1865, had the lower two-thirds of her scapula removed for recurring fibroid disease. The patient did well for some months after the operation, when the reappearance of the disease was noticed in a tumefaction under the pectoral muscle. This swelling rapidly increased, so that all the hollows around the shoulder were filled up by an evenly diffused mass of disease. The health of the girl becoming seriously compromised by the extension of the disease, it was determined to rid her of the tumor, and as this only could be accomplished by the removal of the whole upper extremity, an operation was performed, which is detailed as follows in the *Lancet:*

"The patient having been placed under chloroform, a grooved needle was thrust into the upper part of the tumor a little below the clavicle, at a point where it seemed just possible, from an obscure sense of fluctuation, that fluid was present. There was, however, none. A small incision was then made over and along

the clavicle about an inch and a half external to the sterno-clavicular joint, through which the bone was divided by the saw and cutting pliers. The object of this, as Mr. Fergusson afterwards explained, was to allow free movement of the shoulder during the ensuing steps of the operation, without causing any strain upon the sterno-clavicular joint. By this step, too, implying the preservation of the inner end of the clavicle, the sterno-mastoid muscle was reserved entire. An assistant (Mr. Wood) then thrust his thumb through this wound and compressed the subclavian artery upon the first rib. Next, the incision was continued along the clavicle, at first outwards, then backwards over the acromion, and lastly downwards and forwards, so as to terminate in the inner and upper part of the arm below the axilla. From the point where this incision, leaving the clavicle, tended backwards, another was made passing down in front of the shoulder-joint, and meeting the first at an acute angle. By these means two semilunar flaps were formed, one before and the other behind, and the skin of the axilla was preserved. The tumor having been exposed by dissecting the flaps from its surface, the muscular structures which attached it to the trunk were divided. There still remained to be accomplished the section of the subclavian vessels and the accompanying nerves, and this was the most delicate part of the operation. Behind the clavicle the tumor was less distinct than at any other parts, spreading vaguely amongst the tissues, and rendering it doubtful at first how far it might extend amongst the muscles of the neck. A careful dissection succeeded in completely isolating it. The mass was then drawn forwards, and the subclavian artery was compressed. In order to obviate the chance of slipping, a strong forceps, such as is used for removing sequestra, had been prepared by having its teeth covered with wash-leather. The blades of this were pushed from behind forwards so as to inclose the subclavian vessels, and another instrument of the like kind was pushed from before backwards with a similar object. Thanks to these, which admirably answered their purpose, there was no difficulty in retaining and ligaturing the artery, and the operation was completed by finally dividing the remaining tissues, chiefly nerves and vessels, outside of these blades, with the loss of scarcely a tablespoonful of blood. For precaution's sake, ligatures were applied to two or three other vessels, but they were scarcely needed. The flaps were then brought together, sutures applied, and the patient removed."

The Origin and Causes of Cholera.—Dr. Barth, one of the physicians of the Hôtel Dieu, who had charge of the cholera patients in that institution, has recently delivered a lecture founded upon observations made during the epidemic of cholera in Paris. He believes that the three former attacks of cholera which have visited Paris can be traced to the Ganges as their starting-point; but that the last epidemic evidently took its origin from the pilgrims at Mecca. He is of the opinion that the disease is propagated by means of germs in the atmosphere, having their origin in noxious emanations, and that they are borne by currents of the air from place to place, and are conveyed from port to port on shipboard. A person has no surety against a second or even a third seizure. Among the most marked predisposing causes, he mentions a high temperature; living in low, damp regions; eating improper food, especially fruit; depression of health and spirits, such as follows, for instance, an attack of typhoid, typhus, and rheumatic fevers.

Character of the Flocculi in the Rice-Water Stools of Cholera.—Dr. Geo. Johnson (*British Medical Journal*) says:—"The flocculi in the rice-water stools consist almost entirely of perfectly organized epithelial scales, most of them of large size. Of this fact I have satisfied myself by repeated examinations of the discharges of different patients. The peculiar creamy, viscid secretion which sometimes nearly fills the small intestines after death, is also almost entirely made up of the same fully-formed epithelium. Now, it is obvious that this large amount of epithelium cannot be explained by the peeling away of one or two layers of cells from the surface of the mucous membrane—the result of a local irritation during life, or by maceration by the fluid contents of the bowel after death. This abundant cell-formation can result only from a very active vital effort; and if the object of that cell-growth be not to withdraw from the blood some morbid products—some constituents of the blood or of the tissues that have been damaged by the morbid poison—it is difficult to suggest any explanation of the phenomena."

Treatment of Acne.—Mr. Joseph Morris, M.R.C.S., sends a short communication to the *Lancet*, in which he extols the virtues of the following application as a remedy for acne:—"It consists," says he, "of sulphur, two drachms; rectified spirits of wine, one ounce: the mixture to be well shaken, and applied to the spots night and morning, the face having been previously washed with warm water and medicinal soft soap. The disease may appear at first to be somewhat aggravated by the application, but a persistence in the use for three or four weeks will eradicate it. Why the preparation of sulphur with spirit should be so efficacious in the treatment of this disease I cannot say, as in two very aggravated cases, existing for seven and nine years respectively (both wives of medical men, under my care), after trying various other remedies, especially the sulpher, the disease did not yield until I treated them with the above."

Instantaneous Cure of Coryza.—An army surgeon, M. Luc, seized with very bad coryza, attended by fever, severe cephalalgia, and excessive secretion, determined upon trying the effect of the inhalation of iodine vapor. The coryza first appeared at 9 A.M., and the inhalations were commenced at 3 P.M., being repeated every three minutes during an hour, each lasting about a minute. The headache was first relieved, the sneezing then occurring seldomer, the amount of secretion diminishing, and by 6 P.M. all traces of the coryza had disappeared, except a little burning sensation in the throat. Several of the officers have since tried the means with the same results. The inhalation is effected by placing a bottle of tincture under the nose, the hand supplying warmth enough to vaporize the iodine.—*Rev. Med., Aug.* 31.—*Med. Times and Gaz., Nov* 11, 1865.

Relative Temperature of Arterial and Venous Blood.—M. Colin records some very remarkable experiments proving that the blood in the left side of the heart is warmer than that of the right. He introduced delicate thermometers into the chambers of the heart, and into the great vessels, and found, as Bernard and others believe, that the temperature of the blood is far from being uniform. The two kinds of blood have not the same temperature. This is true of all parts, regional and central, as a rule, except that, in the depth of large organs, the blood of the artery is warmer than that of the accompanying vein. The blood of the carotid, for example, is half, one, or two degrees warmer than that of the jugular; the same thing may be said of the femoral artery and saphena vein, and of the radical vessels. In the arterial system the temperature diminishes

from the centre to the extremities, and in the veins it increases from the radicles to the centre. Each great vein has its own temperature: the superior vena cava affords the minimum, the vena portæ the maximum, and the inferior vena cava presents an intermediate degree. M. Colin found the blood in the left ventricle to be in fifty out of eighty cases considerably warmer than that of the right chambers. Hence he concludes that the lungs play an important part in the development of heat.—(*Lancet, Nov.* 25, 1865.)

Conveyance of Miasmic Poisons.—According to the opinions of M. Zagrill, a physician in Cairo, the poison of cholera is conveyed in minute particles by the wind. This is why it often passes over certain villages without attacking them; the molecules, when propelled by a violent storm, are retained at a certain distance from the ground, in exactly the same manner as locusts, which, carried by the wind, traverse certain localities without committing the slightest ravages. This, in the writer's opinion, is also the reason why the epidemic first makes its appearance in the night; at that time the wind abates, and the molecules are deposited.—(*Lancet, Nov.* 25.)

The Development of Muscular Fibre.—Dr. Wilson Fox has recently published some researches upon the development of muscular fibre, which are of some interest so far as they tend to endorse the cell theory of Schwann. He noticed in the tadpole that the earliest appearance of the fibre was made known by an oval body, containing nuclei and nucleoli, which body he calls a cell. These cells so-called, elongate with or without division of their nuclei, and after a while lose their pigment; exhibiting the characteristic transverse and longitudinal striation which belongs to the perfectly formed fibre. The striation, according to his views, takes place within the cell, and the myolema is nothing more than an elongation of the cell wall.

Perforation of the Membrana Tympani for the Cure of Deafness.—Dr. Gruber, Aural Surgeon in the Vienna General Hospital, has revived Sir Astley Cooper's operation of perforating the membrana tympani in certain forms of deafness, attended with very annoying tinnitus aurium. His success in two cases was very striking, and in others was sufficiently good to justify and encourage the repetition of the operation.—*Archiv für Ohrenheilkunde.*

An Agreeable Anæsthetic.—Mr. Baker Brown, jr., at a late meeting of the Obstetrical Society of London, exhibited a compound made up of two parts of chloroform with one of alcohol, to which the distilled essence of eau-de-cologne had been added, and remarked that he had used it with happy effect in allaying the pain of labor without producing complete anæsthesia.

Removal of Spleen by Operation.——Mr. Spencer Wells successfully removed, Nov. 20th, a hypertrophied spleen from a married woman, 34 years of age. It weighed six pounds and four ounces. This is the first time the operation has been performed in England, and only the third time in the history of surgery. The two other operations were performed in Germany, the subjects surviving only a few hours. The patient, at the latest account, 48 hours after the operation, was reported doing "as well as could be expected."

Trichinous Disease has lately been raging in Berlin, caused by the eating of uncooked pork. A large number of fatal cases have been reported.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Jan. 10, 1866.

Dr. Gurdon Buck, President, in the Chair.

Cancer of Rectum—Operation—Peritonitis—Death.

Dr. L. Voss exhibited the lower portion of the rectum removed by operation from a woman 32 years of age, who had been affected with cancerous disease of that part. He gave the following history:—She had always enjoyed a fair measure of health, and did not have any hereditary tendency to disease. She had several children and menstruated regularly. During the summer of 1864 she lived on Staten Island, and, with her husband and two or three of her children, suffered from dysentery. She, however, recovered without experiencing any trouble in defecation. Her suffering from the present disease began about nine months ago, and when I saw her about the end of November last she was, in consequence of the ravages of the disease, very much reduced in flesh. On introducing my finger into the rectum I discovered, about three quarters of an inch above the anus, an ulcer, with hard margins, painful on pressure, and with a strong tendency to bleed on the slightest provocation. The whole circumference of the gut, with the exception of a small portion on the right posterior part, was involved in the disease. The ulcer did not reach above a point two and a half or three inches from the anus. There was no[t], as is very frequently the case under such circumstances, any stricture of the rectum. The probable fatal result of the case was told the husband, and an operation was proposed as the only chance for the salvation of the patient. The husband consented to the measure. In the course of ten days afterwards the operation was performed by drawing down the diseased portion and excising it, cutting the sound rectum above completely across. The cut portion of the healthy gut was then brought down and attached to the cut margin of the anus. The patient did well until the fourth day after the operadtion, when peritonitis set in, and she died at the end of six and a half days after the operation. I have some reason to believe that if she had been kept properly under the influence of opium in the meanwhile, the peritonitis would have been controlled. The peritonitis was evidently the result of the local injury inflicted by the operation. The cancer, on examination after removal, proved to be of the villous variety. It was confined entirely to the parietes of the rectum. The operation was easy in its performance, when taken into account in connexion with a similar operation which I performed some time ago on a man. The parts around the anus were very lax and dilatable, and rendered the operation comparatively easy; there being ample room for the introduction of the bistoury and scissors. The hæmorrhage was in no way alarming, not even abundant. The patient was placed in the position for lithotomy. There was not the slightest disposition to secondary hæmorrhage.

In answer to a question from Dr. Bauer, he stated that there had been no autopsy made.

Dr. Bauer then remarked that there was no certainty but that ulcerations existed higher up, and that one of these had perforated the gut and had given rise to the peritoneal inflammation; and in that connexion he referred to a case that had occurred to him in which a speedy death from peritonitis was caused by such an accident. In this case he discovered a moderate stricture about three inches above the sphincter. This stricture at first,

to all appearances, seemed to be impervious, and he advised that it first be divided, and afterwards that the parts be dilated. The advice being accepted, an incision was made through the membranous portion of the stricture with great ease and without any accident. Subsequently, one or two injections were administered, and they did not return. When the lady recovered from the effects of the chloroform she complained of intense pain in the abdomen; and this, as was afterwards proved on the first visit after the operation, was due to the existence of peritonitis. Marked emesis being one of the symptoms, opium had to be administered by enemata. In the course of thirty-six hours afterwards the patient was a corpse.

On post-mortem examination, the rectum was found covered, for a space of nine or ten inches, with ulcerations, one of which had perforated the intestine, evidently as the direct result of the injections used. The other ulcerations were discovered to be in different degrees of development; and while some were found only to the depth of the mucous membrane, others were discovered to extend through the muscular layer. The injections were found in the abdominal cavity.

Dr. Voss remarked that as cancerous ulcers of the rectum were for the most part continuous, and as there was a positive limit to the ulceration in the case presented, he did not think he had a right to suppose that others that were likewise so isolated were higher up.

Dr. Bauer was aware of the fact that epithetial cancers in the rectum were, as a rule, continuous; but he had met with exceptions. The operation in Dr. Voss's case seemed to be very slight, and he could not see why the peritonitis should follow so rapidly afterwards, unless there was some other explanation for its occurrence.

Dr. Voss remarked that the operation, because it was not a troublesome one, was not necessarily any the less a dangerous or severe one. He had always believed that peritonitis was one of the most common attendants of the operation.

(*To be continued.*)

Improvements in Instruments.

STEARNS' URETHRAL DILATOR.

This instrument (Fig. 1), manufactured by Messrs Tiemann & Co., was devised by Surgeon Stearns, U.S.A., for the purpose of forcibly dilating strictures of the urethra. It is composed of a staff, handle, and screw. The staff is curved to the same shape as an ordinary steel bougie, and consists of two strands of galvanized steel wire, forming one piece by being folded at the extremity of the curve. When the instrument is to be introduced into the urethra, these two portions or strands are perfectly adapted to each other, until the extremity of the staff is either engaged into the stricture or passes through it a certain distance. The wires are then separated from each other by the motion of the screw arrangement near the handle, which draws upon one strand, and straightens out its curve. The degree of separation can be nicely regulated by means of this screw; and by the use of a thin slide any particular portion of the staff can be acted upon. For instance, if the dilatation is to be made near the extremity of the instrument, the slide is placed but a short distance from the point of the staff; and if the stricture will allow of the passage of the staff for a considerable distance through it, the slide is kept nearer the handle of the instrument. The power which this instrument possesses is, on account of the action of the screw, very remarkable.

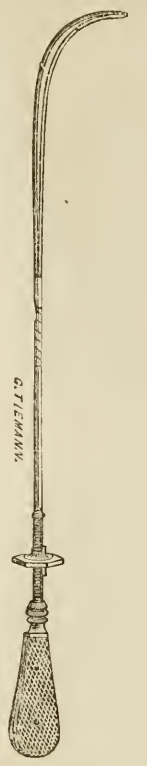

Fig. 1.

Fig. 2.

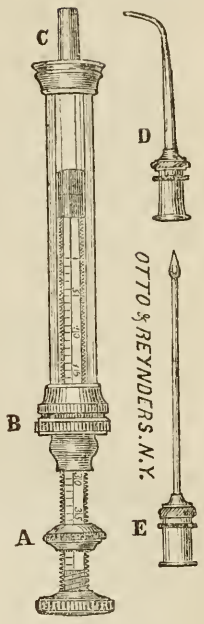

Fig. 3.

LIVINGSTON'S SPRING CAUSTIC PROBE.

(Geo. Tiemann & Co.)

The construction of this instrument can at once be understood by a reference to the woodcut (Fig. 2). In a word, it consists of a small canula, which contains a very sensitive silver spiral spring attached to the end of a delicate probe. It was devised by Dr. Livingston, of this city, for the purpose of applying caustic to delicate membranes. All the preparation required is the coating of the end of the probe with caustic, previously fused.

Dr. L. Thus speaks of the instrument:—

"The 'Spring Caustic Probe' was suggested by the difficulties I encountered in treating disease of the membrana tympani. Every one who has attempted to cauterise an ulcer of this organ must have experienced the difficulty of estimating, accurately, the distance from the caustic to the point of application through the narrow canal. Hence the utmost caution must be used, lest the delicate membrane be destroyed by the very means employed to free it from disease; and by the exercise of the requisite care, the operation is usually very imperfectly performed. But with the instrument in question, no fear of doing harm need be entertained, as the *spring* is so sensitive as to yield before any injuy can be done to the most delicate organ. I have used the instrument in many cases, and with much satisfaction, especially in children, where it is so difficult to obtain quietness for any

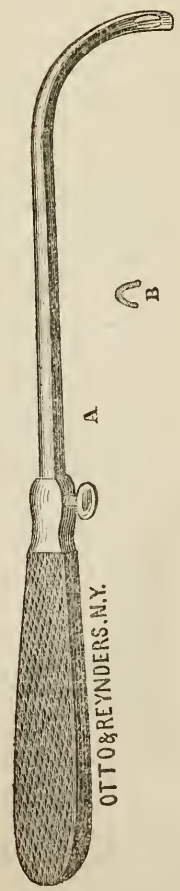

Fig. 4.

prolonged operation. A moment will suffice to get the range, and to thrust the probe upon the diseased point without any hesitation for fear of results."

LUER'S IMPROVED HYPODERMIC SYRINGE.

This instrument (Fig. 3) is an important modification of the hypodermic syringe, and was obtained by Mr. Reynders, of this city, from Mr. Luer, of Paris.

The barrel of the syringe has the capacity of forty minims, and the piston is graduated for each drop. A female screw (A) is made to run upon this piston and stop its progress at any given point, according to the number of drops that are required to be injected. By this arrangement not only is the amount of injection exactly regulated, but the same syringeful, by successively moving the screw towards the piston, can be made to serve a number of patients until the whole is used up. It also has an adaptation (D) for injecting the lachrymal sac.

OLLIER'S PERIOSTEUM PROTECTOR.

This very simple and useful instrument (Fig. 4) has been devised by Ollier, for the purpose of detach ng the periosteum from the bone, and of protecting that membrane from injury by the chain-saw, and is more especially adapted to resections. The staff is flattened at its extremity for obvious reasons, and except at this point, is grooved upon its concave surface throughout its whole length. The handle is perforated longitudinally, and allows of the sliding of the staff within it. This arrangement is for the purpose of lengthening or shortening the instrument, according to the necessities of the case, the staff being firmly fixed in a given position by means of the screw in the handle. The staff is passed with its concave surface next to the bone, and by careful and gradual manipulation the periosteum is separated, after which the chain-saw is passed between the bone and instrument through the groove, and is afterwards worked in it. The relative depth of the groove is represented at (B.) The instrument is manufactured by Otto & Reynders.

New Publications.

ANNOUNCEMENTS OF NEW BOOKS.

The following named new works are announced as in preparation by

HENRY C. LEA, Philadelphia:
Flint's Practice of Medicine. 8vo.
Pereira's Materia Medica, abridged. 8vo.
Roberts on Urinary and Renal Diseases.

WILLIAM WOOD & COMPANY, New York:
Sims, J. Marion, on Uterine Surgery. 8vo., illustrated.
Garrod on the Action of Medicine. 8vo.
Burrall on Cholera. 12mo.
Foster on Dyspepsia. 12mo.

LINDSAY & BLAKISTON, Philadelphia:
Aitken's Practice of Medicine. 2 vols. 8vo.
Beale on the Microscope.
Hoffman's Introduction to Modern Chemistry.
Noad's Students' Text-Book of Electricity.

D. APPLETON & Co.:
Flint, A., Jr., A System of Physiology. 8vo.

BOOKS AND PAMPHLETS RECEIVED.

LECTURES ON EPILEPSY, PAIN, PARALYSIS, and certain other Disorders of the Nervous System, by CHARLES BLAND RADCLIFFE, M.D., Fellow of Royal College of Physicians of London, Physician to the Westminster Hospital, &c. Philadelphia: Lindsay & Blakiston, 1866.

STIMULANTS AND NARCOTICS, their Mutual Relations, with Special Researches on the Action of Alcohol, Ether, and Chloroform on the Vital Organism, by FRANCIS E. ANSTIE, M.D., M.R.C.P., Assistant Physician to Westminster Hospital, Lecturer on Materia Medica and Therapeutics to the School, and formerly Lecturer on Toxicology. Philadelphia: Lindsay & Blakiston, 1865.

SUCCESSFUL REMOVAL OF THE UTERUS AND BOTH OVARIES BY ABDOMINAL SECTION, the tumor, fibro-cystic, weighing thirty-seven pounds, by HORATIO ROBINSON STORER, M.D., of Boston, Assistant in Obstetrics and Medical Jurisprudence in Harvard University, Surgeon to New England Hospital for Women, &c. 8vo. pp. 32. From author.

CONTRIBUTIONS TO BONE AND NERVE SURGERY, by J. C. NOTT, M D., Professor of Surgery in Mobile Medical College. Philadelphia: J. B. Lippincott & Co., 1866.

LECTURES ON INFLAMMATION, being the first course delivered before the College of Physicians of Philadelphia, under the bequest of Dr. Mütter, by JOHN H. PACKARD, M.D., author of a "Manual on Minor Surgery," translator of Malgaigne's "Traité des Fractures," Secretary of the College of Physicians, &c., &c. Philadelphia: J. B. Lippincott & Co., 1865.

LECTURES ON VENEREAL DISEASES, by WILLIAM A. HAMMOND, M.D. Philadelphia: J. B. Lippincott & Co., 1864.

CIRCULAR No. 6. WAR DEPARTMENT AND SURGEON-GENERAL'S OFFICE. Washington, Nov. 1, 1865. Reports on the extent and nature of the materials available for the preparation of a medical and surgical history of the Rebellion. Printed for the Surgeon-General's Office by J. B. Lippincott & Co. Philadelphia, 1865. (From Surgeon-General, U.S.A.)

TRANSACTIONS OF THE MEDICAL SOCIETY of the State of New York for the year 1865. (From Dr. N. C. Husted.)

Medical News.

APPOINTMENTS.

COLLEGE PHYSICIANS AND SURGEONS, N. Y.—Dr. T. G. THOMAS has been elected to fill the chair of obstetrics rendered vacant by the death of Prof. Chandler R. Gilman.

NEW YORK EYE INFIRMARY.—Dr. R. F. WEIR has been appointed Aural Surgeon to the New York Eye and Ear Infirmary, to fill one of the vacancies occasioned by the resignations of Drs. Roosa and Hinton.

DELEGATES TO THE STATE MEDICAL SOCIETY FROM NEW YORK CITY.—The following are the names of the delegates from this city to the State Medical Society, so far as we have been able to ascertain: From N. Y. Academy of Medicine, Drs. J. L Banks, J. H. Hinton, Geo. F. Shrady, H. D. Noyes, and H. P. Farnum; from the N. Y. County Medical Society, Drs. W. N. Blakeman, James L. Brown, James J. Connolly, Louis Elsberg, Guido Furman, Chas. Henschell, Saml. T. Hubbard, James Kennedy, Jonas P. Loines, John B. McEwen, James O. Pond, W. H. Thomson, A. Underhill, John R. Van Kleek, and Jerome C. Smith. Drs. William B. Bibbins and Lewis A. Sayre were elected to fill vacancies.

NEW OFFICERS FOR THE N. Y. ACADEMY OF MEDICINE.—The following gentlemen were elected to fill those vacancies which have occurred during the past year, by reason of expiration of term of service: Dr. O. White as Vice-President; Dr. A. Underhill as Trustee; Dr. W. H. Draper, member of Committee on Admissions; Drs. E. R. Peaslee and J. O. Stone, members of Committee on Ethics; and Dr. A. Clark, member of Committee on Education.

EAST RIVER MEDICAL ASSOCIATION.—A new association, entitled the East River Medical Association, has lately been organized on the east side of the town, its object being the discussion of medical subjects in general. Dr. John Hart is the Pres't, and Dr. John Shrady, Sec'y.

Original Communications.

PAPERS UPON VENEREAL DISEASES.

By F. J. BUMSTEAD, M.D.

No. I.

Review of the Evidence upon which is based our Belief in the Existence of two Diseases in the "Syphilis," of Fifteen Years ago (1851).

In the history of medicine there has rarely been so radical a change of opinion in so short a space of time as has taken place within the last few years relative to those diseases which were recently known under the common name of "Syphilis." Notwithstanding the general acceptance of the "new ideas" upon this subject, however, doubters and cavillers are still to be met with.

Some of these are probably incorrigible. Within five years, an eminent professor in a medical college wound up a discussion between us on the simple nature of gonorrhœa, with the remark: "Well, Doctor, I have taught the doctrine opposite to yours too long to be able to change." If advocates of the idea that gonorrhœa is dependent upon the syphilitic virus can still be found, we may well despair of leading *all* one step further. Instances of this kind must, however, be rare; and it is with the hope of convincing those not yet convinced, but still "open to conviction," that I offer the following remarks upon the evidence of the existence of two diseases in what was known as "syphilis" fifteen years ago; and I propose to subject this evidence to the same laws as are generally recognised as decisive in the classification of the various departments of Natural Science. As will be seen before we conclude, if the subject of this paper were adapted to a sermon, the appropriate text would be: "For every tree is known by his own fruit."

Let us remark at the outset, that the basis of all classification in Natural History is the perpetuity of certain characteristic traits in successive generations. "Like produces like." If the seeds of the tulip sometimes produced a rose, or the progeny of the eagle were occasionally sparrows, or if the members of every genus and species of the animal and vegetable kingdom could not be relied upon to produce their like, then would classification cease. It is true that hybrids exist; but they are either incapable of reproduction, or else in a few generations they revert to the original type.

Let it also be observed that the distinctive marks of genera and species are not necessarily patent in all stages of development, and that it is not at all uncommon for them to be entirely absent or undiscernible in the earlier stages. It would be impossible to classify animals and vegetables, in many instances, simply from inspection of their ova or seeds. The young of many birds of different species cannot be distinguished. Immature specimens of mosses, carices, and of other natural families of the vegetable kingdom, are of but little use to the botanist, who wants the fruit in order to identify the species. It has not occurred to any one, however, to found upon this fact an attempt to overthrow the value of classification in general. It is universally recognised as sufficient that well marked specific differences exist at some period in the development of the species, and especially in their maturity. Their absence, or perhaps our inability to recognise the same in certain stages, particularly the earlier, does not lead us to throw classification aside.

In pathology, the laws of classification are necessarily much less definite, the distinctive features of various diseases much more obscure, than obtains in Natural Science. Our means for observation are less perfect. Extraneous influences, modifying the type, are more numerous. Hybrids are frequent, and the elements of the cross or combination often difficult of separation. Hence the frequent disputes with regard to the identity or non-identity of two diseases—as, for instance, typhoid and typhus fevers. Hence the frequent hesitation of the medical practitioner in filling up a death certificate when the patient died from a "complication of diseases." What was the "direct," and what the "indirect cause of death," proves to him a knotty question.

Now, the greater the obscurity cast upon classification of diseases in general by the absence of constant, well defined, and characteristic symptoms, the greater the value of such symptoms when they exist; and when thus, in pathology, we can attain, or approximate to, the accuracy of Natural Science.

And here lies the stand-point of those who believe and advocate the existence of two diseases in the "syphilis" of fifteen years ago. We claim for our distinction the same kind of proof that is employed by students of Natural Science in their classification —viz. the presence of characteristic traits which are constant from one generation to the other. We claim, in short, that if a naturalist have a right to separate a rhinoceros from a mouse, or a heron from a bobolink, we have the same right to recognise two diseases in the "syphilis" of our medical pupilage.

The characteristic traits upon which this claim is founded are separated by the broad distinction of a local character upon the one hand, and a general or constitutional character upon the other. What greater difference were possible?

For many years prior to 1852, the fact that the effect of "syphilitic infection" was sometimes limited to the point of inoculation and its immediate neighborhood, and that sometimes it extended to the whole system, was regarded as due to some peculiar idiosyncrasy of the individual. No attempt was made, however, to specify in what this peculiarity consisted, or to explain the strange fact that the same person, with constitution and idiosyncrasy remaining the same, might, within a short space of time, undergo two exposures with results so radically different as those named.

The fallacy of this explanation was exposed in 1852 by Bassereau, who at the same time showed that the cause of a general disease appearing in one case and a local disease in another, could only be attributed to the nature of the poison communicated in contagion; as proved by the fact that the recipient invariably had the same form, either local or general, as existed in the giver; and that this uniformity of type could be traced back, whenever the opportunity offered, in preceding generations, and its perpetuity be predicted in succeeding generations, with unerring certainty.

It is not my purpose at present to enter into the details of the investigation by which Bassereau arrived at this conclusion, and which I have given elsewhere. Suffice it to say that it was done by a series of "confrontations" of persons receiving and giving venereal diseases, such as could be better carried out in Paris than anywhere else in the world, owing to the extensive venereal hospitals of that city, and the efficiency of the French police; that Bassereau's cases and those subsequently reported by Dron, Diday, Rollet, Rodet, Fournier, Caby, and others, all affording the same testimony, numbered several hundred; and that this result had only to be announced to meet with almost uni-

versal acceptance, so fully did it coincide with the experience, and so perfectly did it satisfy the mind, of nearly every observer. It is upon the character of this proof, however, that I now repeatedly insist—viz. that it is precisely of the same nature as that which is admitted as valid in Natural Science. If I am correct in assuming this position, it must, I believe, be regarded as invincible.

Collateral proof has, indeed, been adduced by Bassereau and others; but it should be regarded only as collateral and secondary. Thus, from a careful examination of medical literature, Bassereau was able to show, satisfactorily to himself and others, that one of these diseases had been known in all ages of which we have any record; whilst the other was unheard of in Europe until about the year 1494, the time of the "Italian epidemic;" and that the two were regarded as distinct by physicians and by writers upon Venereal for thirty years afterwards, when the "age of confusion" commenced.

The proof afforded, also, by an examination of the earliest lesions of the two diseases under consideration, —so far as taken in evidence of their distinct nature— must be regarded as of minor importance, because obtained at that period of development in which characteristic traits are always most obscure and liable to be mistaken; but, above all other reasons, because it cannot touch the main question, the character of the fruit. In a clinical point of view, the case is, of course, different, and this proof is of great importance both in the prognosis and treatment. Fortunate, indeed, is it that it exists, and is so constant and reliable. I do not hesitate to say that our ability to separate the two diseases in the earliest stage of their development is much greater than that of the naturalist to distinguish the young forms of allied species in the animal and vegetable kingdoms; although this is not to be wondered at, because the difference is here, as it were, generic, and not merely one between species. Supposing, however, that the proof referred to were entirely absent, and that we could never distinguish two diseases in the "syphilis" of fifteen years ago in the earlier stage, the evidence in favor of their distinct nature would not be shaken a hair's-breadth.

Differences in "characters," so-called, were recognised for many years prior to 1852, but the two diseases were still confounded, until Bassereau first showed the perpetuity in successive generations of the resulting fruit.

If the preceding remarks be well founded, how unphilosophical, not to say frivolous, are many of the objections urged against the recent views of Venereal Pathology? One or two examples will suffice.

Objector No. 1 says:—"I have a case of a sore upon the penis which appeared two days after coitus, and yet was followed by secondary symptoms. There was no incubation of 'two or three weeks,' such as you claim for true syphilis."

Now, ten chances to one, this objector has never inquired how often, and at what intervals, his patient was exposed previous to the appearance of the disease, and innocently supposes that his infection must be due to his last act of coitus. But suppose that there was no exposure prior to the last for a long period. Was not violence done to the penis in the act, and was not the sore observed two days afterwards, a mere rent or abrasion, in which, kept open by want of cleanliness, the usual symptoms of the initial lesion of syphilis developed themselves at a much later period? Was this point carefully investigated at the time by a competent observer, or does the whole case, as reported, rest upon the statement of an unprofessional patient? Under any circumstances, does the case invalidate the "duality" which we claim? Not in the least.

Objector No. 2 belongs to a more numerous class. He says that his patient had a "soft chancre" upon the penis or vulva, appearing six weeks ago; that the sore was soon followed by a suppurating bubo in the groin; and that now, "contrary to your doctrine," secondary symptoms have appeared.

His (the objector's, not the patient's) case is a serious one, and requires careful management.

We inquire, in the first place, as to the interval which elapsed between the exposure and the development of the sore. Objector probably does not know. He "never thought to inquire."

We ask if he saw the ulcer at an early period of its evolution; is he sure that its base was not then indurated; what was the condition of the inguinal ganglia at that time, before inflammatory action had commenced? Is the patient of a strumous habit, or has he received any recent injury in the groin? The answers to these questions are frequently indefinite and unreliable. Objector convicts himself of imperfect observation, and we may well doubt all of his statements which depend upon a careful use of sight and touch.

Take the case, however, as presented, and see what we can make of it.

Induration of the sore may have been poorly marked, or altogether absent, especially if the patient be a woman; and hence objector's supposition that it was a case of "soft chancre."

Or, there may have been a double inoculation,—inoculation of the virus pertaining to each of the two diseases we are considering, as not unfrequently occurs. This would fully explain the difficult points of the case as presented; the character of the sore itself; the suppurating bubo; the apparent absence of induration of the ganglia buried in the inguinal swelling—and yet the subsequent evolution of the general symptoms of syphilis.

But without such double inoculation, the changes ordinarily effected in the ganglia by the true syphilitic virus afford no protection against inflammatory action. No one has ever asserted that ganglia thus affected cannot inflame and suppurate. The only wonder is, that when thus changed from their normal condition, they are not more susceptible to the influence of a strumous diathesis, undue exercise, or external violence.

Under either of the above suppositions, the patient has evidently been inoculated with the virus of true syphilis; and if objector had examined the person from whom the disease was derived, he would have found traces of the same disease.

Additional illustrations might be given, but these will suffice. In most such cases we find imperfect observation and ignorance of the distinctive marks of the two diseases in their earliest phase, and of the modifications of which they are susceptible; but we find especially the erroneous idea that the existence of two diseases in the "syphilis" of fifteen years ago is based upon evidence afforded by the initial lesions.

To those who, without taking the trouble to study the subject, bring forward cases imperfectly observed, or resting solely upon the statements of patients, in a fault-finding spirit, the only answer to be given is: You are reasoning upon false premises. The tree is known by its fruit. If you wish to overthrow the "modern views" of Venereal Pathology, you must adduce evidence of quite a different character. You must show by a series of cases accurately observed, and judged of in their totality, that the two diseases which

we recognise occur at random, or under the influence of accidental causes, in successive generations.

To the earnest student and inquirer we may say: Doubtful cases at an early period may be met with. The diagnosis may be cleared up by examination of the source of contagion, in which the disease is further advanced, and its characteristic traits better developed. If such examination be impracticable, wait for the fruit.

A CASE OF SPONTANEOUS AMPUTATION IN UTERO.

By OSCAR H. YOUNG, M.D.

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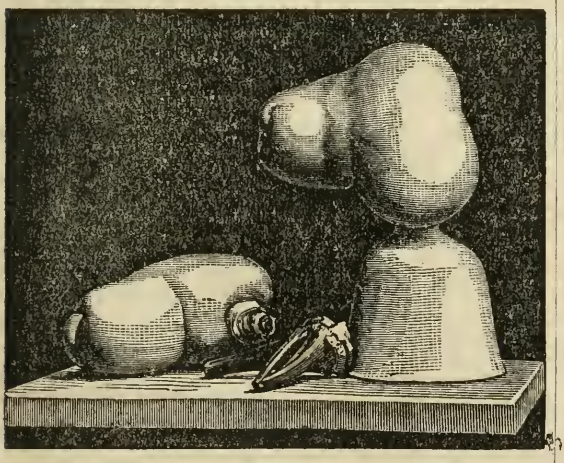
On the 19th of May, 1862, a daughter was born to Mr. Rodgers, of Bemis Heights, New York, with a remarkable deformity of the right leg and thigh. The leg was wanting from about four inches below the knee, and the thigh was partially amputated about four and a half inches above the knee-joint.

There are quite a number of cases on record, both of complete and partial spontaneous amputation; but none of them are entirely similar to the present, inasmuch as it illustrates both processes, and that, too, on the same limb.

There was nothing in the condition of the mother during her gestation to account for the deformity of the child. She experienced no shock or injury, nor was she subjected to any fright or other extraordinary mental impression during her pregnancy.

The stump of the amputated leg was completely healed, and was perfect and comely in shape, as though it had been made with the surgeon's knife. The extremity of the stump was covered with smooth normal skin, there being no cicatrix visible excepting a small spot in the centre.



This peculiarity has an important bearing on the question as to the nature of the process by which spontaneous amputation is effected; and it is difficult to examine closely, and reflect upon the appearance of such a stump, without being forced to the conclusion so ingeniously advanced and supported by Dr. Montgomery—viz. that the agent by which the amputation is effected is a *ligature*. In some cases the umbilical cord is found tightly coiled around an arm or a leg, and deeply imbedded in a groove or depression in the soft parts. In other cases the child is born with a limb partially divided, and the depression found to be occupied by a cord of fibrous lymph, an adventitious material thrown out from the placenta or the umbilical cord, or sometimes from the body or members of the fœtus.

In the case of Mr. Rodgers's child there was no abnormal appearance of the umbilical cord, nor any indications of a ligature, excepting its effects.

The integuments were carried inwards, and drawn into a conical form, the continuity of the skin being perfect, with the exception of the small central cicatrix. The subjacent parts would thus be compressed, and after a time the blood-vessels would partake of this compression to such a degree as no longer to be capable of transmitting sufficient blood to maintain the growth of the limb below the constricted part. The bone would necessarily be involved in the process of interstitial absorption, and thus gradually reduced in size and strength, so that it would yield to a very slight force—as, for instance, the motion of the fœtus itself. But a small spot would remain to be cicatrized, where the previously reduced bone and integuments were divided.

The separated part of the limb was very likely present, and might have been found amid the secundines; but no search was made, for the reason that, the room being dark, the deformity escaped the notice of the attending surgeon, and was not known to him until his second visit was made, at which time the secundines had been thrown away.

The *thigh* was partially divided four and a half inches above the knee-joint. The diameter of the constricted part was one and one-third inches, while the limb directly above and below measured three inches in diameter. (These measurements were made when the child was three years and five months old.)

The depression was uniform, and of nearly equal depth around the limb. It was such as would result from the application of a ligature tightly around the child's thigh. The bone was intact, and the blood-vessels not obliterated, which accounts for the natural symmetry of the limb below the depression.

The child was brought to Professor Armsby while very young, and he advised the parents to wait. It was brought to him again when at the age of three years and five months, when the operation was performed. A circular sweep was made with the knife, the tissues were retracted, and the femur divided. One artery was ligated, after which the flaps were united by a single suture, and the dressings completed in the usual manner.

The stump was completely healed at the end of a week; the case having progressed in the most favorable manner.

The amputated portion was dissected, and found perfectly normal. The tibia and fibula were closely approximated at their extremities—viz. where the spontaneous amputation had occurred—and the ends were neatly rounded off.

Annual Reports of Northern and Demilt Dispensaries.—The thirty-ninth annual report of the Trustees of the Northern Dispensary for the year just closed, makes the whole number treated, including about 4000 home visits, 28,663; of these 28,212 were cured or relieved; 318 sent to hospital; 91 died; 17 were discharged as improper subjects, and 25 remained under treatment on December 31, 1865.

The report of the managers of the Demilt Dispensary for the same period, is as follows: Total treated, including 4818 home visits, 37,605; 333 sent to hospital, and 130 died.

In the former institution, 33,395 prescriptions were dispensed; and in the latter, 63,788.

ON THE ADVANTAGES OF THE

EARLY TREATMENT OF FRACTURES OF THE BONES.

By ALFRED C. POST, M.D.,

PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

When I was a medical student, I was taught that recently fractured bones required no other treatment during the first week or ten days, than placing the limb in an easy position on a pillow or cushion, and applying evaporating lotions, and using other simple means for the prevention or relief of inflammation. According to the instructions which I then received, it was worse than useless at that early period, by extension and counter-extension, and various manipulations, to place the fragments in accurate apposition, and to apply bandages and splints, and other apparatus, to maintain the fragments in their proper relative position. It was deemed advantageous to wait until the period for active inflammation had passed before resorting to any systematic measures for securing a proper adaptation of the broken surfaces to each other. Such were the lessons which I received from those to whom I looked as my instructors and guides, as I entered upon the practice of surgery; and at that time I did not question the correctness of the views which were inculcated. But as I began to acquire personal experience in the management of this class of injuries, my confidence in the correctness of the instructions which I had received began to be shaken; and it was not long before I came to the settled conclusion that the methodical treatment of fractures is easier to the surgeon, more comfortable to the patient, and more advantageous in its ultimate results, when it is commenced at the earliest practicable period after the infliction of the injury; and this conviction has been confirmed by a long and ample experience in the treatment of fractures in the New York Hospital, and in private practice. And as some of our teachers of surgery still inculcate what I regard as erroneous ideas on this subject, I have thought proper to present to the profession the results of my observation and experience.

According to my observation, a fractured limb, when merely laid upon a pillow, or supported by cushions, is a source of great discomfort to the patient, who has a painful sense of helplessness and insecurity; being obliged to exercise the utmost vigilance to avoid such movements as will give rise to acute pain. If he fall asleep, he is suddenly aroused by spasmodic twitchings of the muscles, causing the surrounding soft parts to be pricked and irritated by sharp spicula of bone, occasioning great suffering, sometimes amounting to agony. When the limb is left for a week or two without accurate coaptation of the fragments, and only supported by pillows or cushions, the muscles become firmly contracted, and offer great resistance to subsequent efforts to restore the limb to its normal length. The limb becomes otherwise deformed, being bent or twisted, so as to mar its beauty, and often to impair its functions. The deformity thus induced is rendered more intractable by the results of inflammatory action, such as the effusion and organization of fibrine fixing the parts in their abnormal position; and when, at a later period, systematic efforts are made to reduce the fragments to their normal position, much greater pain is inflicted than would have been occasioned by the replacement at an earlier period, and the fragments are not brought as accurately into their proper position as they might have been immediately after the fracture had occurred.

When I am called to a recent fracture, I endeavor, with as little delay as possible, to bring the fragments into an accurate state of coaptation; employing for this purpose extension and counter-extension to such a degree as may be required, together with such manipulations as the condition of the fractured limb may render necessary. I often find it advantageous to administer an anæsthetic to facilitate the reduction of the fracture. Having brought the fragments into apposition, I at once employ such bandages and splints, or permanent extension and counter-extension, or other mechanical support, as may be required to prevent any considerable displacement at the seat of the fracture. I am careful to avoid applying bandages so tightly as to give pain to the patient, or to strangulate the circulation through the limb. I always give directions to the persons who are in immediate charge of the patient to loosen the bandages during my absence, if from swelling of the limb, they become painfully tight. I also make it a point to visit the patient within twelve to twenty-four hours after the first application of the apparatus, for the purpose of re-adjusting it, if necessary. With these precautions, I find that the early treatment of fractures, as indicated, adds greatly to the comfort of the patient; relieving him from his painful sense of helplessness, preventing in a great degree the spasmodic twitchings which often occasion such acute suffering, and diminishing the amount of inflammation consequent upon the injury. My patients uniformly express themselves as relieved by the replacement of the fragments, and by the mechanical support which is afforded to the limb. At this early period there is comparative facility in overcoming the deformity which is occasioned by the fracture, and less active measures are required during the subsequent treatment to prevent a recurrence of the displacement, than if the active treatment had been commenced at a later period. I think also that the early treatment of fractures is advantageous in diminishing the tendency to rigidity of the muscles and articulations. To prevent such rigidity, I am in the habit of frequently re-adjusting the dressings, and cautiously applying passive motion from the beginning.

I am aware that the practice which I have inculcated is liable to abuse, and that irreparable mischief is often the result of the early application of tight bandages in such a manner as to strangulate the circulation, and to occasion mortification of the limb. It would be incomparably better to leave the fractured limb entirely to nature than to bandage it in the manner in which a sailor splices a broken spar. But with the precautions which I have indicated, no such mischievous results will follow; but the comfort of the patient will be greatly promoted, and his limb will be more perfectly restored to its normal shape, and its functions will be more speedily and more perfectly regained.

Services of Officers of Medical Department of Army.—I desire to bear testimony to the ability, courage, and zeal manifested throughout the war by the officers of the Medical Department under all circumstances and upon all occasions. With hardly an exception, they have been actuated by the highest motives of national and professional pride, and the number who have been killed and wounded bears most honorable testimony to their devotion to duty on the field of battle.—*Annual Report of Surgeon-General U. S. A., for* 1865.

Original Lectures.

ON CHOLERA.

By A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.

Lecture I.

The Pathological Anatomy of Cholera—Appearances of the body of a person who has died of the disease—Curious phenomena sometimes developed in connexion with muscular contraction—Post-mortem changes in Brain, Stomach, Large and Small Intestines.

Far off in the East, for centuries, there had been nursed a disease which was destined to become a scourge to the world. It was retained within that eastern region, so far as we at present know, until the early part of the present century. From 1817, the physicians of this country and of Europe have become familiar with what is now denominated the Asiatic cholera. Histories of this disease have been found extending back a couple of centuries. When the Madras Medical Board was called upon to report to the government all the facts that they could ascertain regarding its history, nature, and treatment, they discovered in their researches that a Dutch physician named Bontius had described a disorder which they recognised as identical with that they were familiar with in 1817; he having described it in 1629. Between that period and the date of their report, this Medical Board was able to discover occasional outbreaks of the same affection, but confining itself, in all this period of time, to the region where it was originally produced—in India—or spreading only short distances. In 1817, as most of you are already informed, it began its march westward; indeed, it began its march from the Delta of the Ganges in every direction—not westward only, but eastward, northward, and southward. It was not, however, until 1830 and 1831, that it fairly made its appearance in Europe; having, however, first reached Astrachan in 1832. In 1832 it appeared in this country; and from that time till the present, Europe and this country have been visited by four severe epidemics. The first here occurred in 1832; the disease beginning in Quebec and Montreal, within two days of the same time, the 8th of June, and reaching New York in the latter part of June, probably about the 24th, it was declared epidemic in this city on July 3d of that year. Again it appeared in 1834; an epidemic of no very great severity, compared with that which preceded and that which followed, but still an occasion on which a considerable number of lives were sacrificed. Again, in 1849, it made its appearance in this country; and then the mortality was great. Once more, in 1854, it occurred here, and spread pretty widely through the country; but produced less mortality than the preceding occasioned.

The interest which attaches to this subject to-day is, that the same disease has been prevailing anew in Europe, in Asia, and in Egypt; and fears are entertained that, with the opening spring or coming summer, it may again visit us. In view of this last fact (and with reference to the probabilities of this I shall make some remarks by and by), it has seemed to me worth while to take a general review of the history of this disease, to look up the opinions and experience of the past, and see if there is anything in such a survey that will enable us to meet the disease with more hopefulness when it comes again, if indeed it must come, and with a better understanding of our resources and duties in regard to it; and so I propose to present to you the results of this examination. It will at least save you a great deal of time and reading, and perhaps put you in a position to begin the conflict with it armed with a knowledge of most that is known of the disease at the present moment.* The mode in which I propose to treat the subject leads me, first, to present to you its pathological anatomy; you will appreciate the symptoms all the better for knowing what changes are coincident with them within the body.

With reference to what is to be found after death, one of the most striking things to be noticed is the appearance of the cadaver. The body of a person who has died of cholera presents peculiar appearances that would enable one at all familiar with the disease to recognise it at once. The features are thin; the surface, either in parts or throughout the whole extent of it, is of a bluish or slightly livid color; the fingers are thin, and at their extremities and palmar surfaces they are wrinkled, like the fingers of a washerwoman; there is a leaden paleness of the face; there is usually a ring, more or less distinct, of a blue or livid color about the eyes, and these organs are sunken; sometimes the tendons, particularly of the feet or of the wrists, and occasionally some of the tendons of the legs, stand out prominently, as if there were some unnatural contraction of the muscles.

There is something, too, in the mode in which the stiffening of the body occurs that is worthy of notice. You are all aware that the dead body becomes after a time stiffened, so that it is difficult to flex the joints; this is called the rigor mortis. This rigor mortis occurs in persons who have died of cholera, earlier than in most other diseases; and it is especially remarkable that it will in many instances occur before the natural heat has left the body, or is materially diminished; it has been known to occur when the temperature was as high as 100½°; it takes place often in forty minutes from the time of death, and is usually noticed to have occurred within the first two hours.

Again, in the dead body after cholera, there are certain strange movements of the muscles noticed. It is a very well known fact that after a sudden death, the muscular contractility is preserved for some time, and can be brought into exercise by proper stimulants. It is a common experiment upon the bodies of criminals who have been hanged, to apply electricity to make the muscles contract; and this kind of contraction can be continued for some hours after death, two or three in many instances; this fact shows you, at least, that the ability of these muscles to contract has not been lost at once, even though death of the body has occurred. So, after certain diseases, this power remains; and the muscles move the limbs, under the influence of irritation, in the reflex nervous system. The nerves then are not yet wholly dead. This has been observed in persons who have died of apoplexy; it was observed by Dr. Dowler in some who died rapidly of yellow fever; and it has been noticed in a few other instances. But after cholera it is of more frequent occurrence, and is more striking than in perhaps any other affection; as, for example, we have records of a great variety of movements of the hands and of the legs; the movements are almost always slow; the hand is often brought slowly up upon the breast and allowed to rest there; in one instance, recorded in the *Medical Gazette*, the dead person lifted both hands slowly upon the chest, brought them

* One of the richest repositories of information which I have consulted, is entitled "Reports on Epidemic Cholera, drawn up at the desire of the Cholera Committee of the Royal College of Physicians, by William Baly, M.D., and William W. Gull, M.D." From this book I have drawn much that will be found useful in these lectures. I make this general acknowledgment to avoid the inconvenience of frequent reference.

together, and clasped them as in the attitude of prayer. In another recorded instance, the eyes were slowly opened and turned downwards. In still another instance, pretty decided convulsive movements were noticed by a Russian physician; and in that instance, the movements were not of course so slow as in the others referred to. These movements are occasionally so marked as to lead to the impression that the person cannot be dead; but you will not understand that they occur in every instance.

Still another circumstance regarding the body: in persons who have died of cholera, usually at the time of death the temperature of the surface is below the normal standard, and it is a very common occurrence that the temperature of the body rises, after the breath has ceased, from a degree and a half to three degrees; and this apparent production of heat does not depend on the temperature of the atmosphere, notwithstanding the disease prevails most virulently in warm weather; it is observed in the mouth or in the axilla of the patient; it is observed particularly upon the surface by folding a portion of the skin over the bulb of a thermometer. Outspread portions of the body are apt to be cooler than such parts as are closed upon themselves, as the mouth and axilla. This elevated temperature was preserved so long in a case observed by Dr. Green, and recorded in one of the London journals, that he was induced to believe there was a lingering spark of vitality in the body, and had it surrounded with sawdust, hoping nature would find some other means of announcing lingering life; in the meantime he applied electricity and opened a vein, but after two days' trial he was induced to abandon the attempt; but during those two days the temperature had not greatly fallen, though that it had not, is to be ascribed in a great degree, doubtless, to the fact that it was cherished. This same increase in surface temperature after death has been observed in yellow fever, after puerperal fever, and after asphyxia; but its occurrence after cholera is so much more frequent and marked, that it makes it a prominent feature of the disease, and is worthy of particular mention. After most diseases which produce a fluid state of the blood, as seen at *post-mortem* examinations, the decomposition of the body takes place rapidly. Cholera seems to present an exception to this law. The purefaction process is not more rapid than after death by an acute inflammation.

Now, if we turn to the organs in the interior of the body, we shall find it a pretty elaborate study to notice all the changes that have taken place during the progress of the disease. Let us look first at the brain. Within the cranial cavity of those who die of Asiatic cholera, it is common to find a considerable amount of congestion in the vessels of the dura mater, in the great sinuses, and in the vessels of the pia mater; and not unfrequently the vessels that ramify through the substance of the brain are found to contain more than the usual or proper allowance of blood; and this is more particularly true of those persons in whom, among the later symptoms, was stupor or coma. It is not by any means in all the persons who die of this disease, that this congested state of the vessels is discovered; but in a considerable proportion, amounting to nearly one-half, it occurs in a greater or less degree. In a certain proportion, also, it is ascertained that serous effusions take place, chiefly in those persons who had passed into the typhoid state, or in whom, during the collapse, there was noticed somnolency or a considerable amount of coma. The effusion has been found in considerable quantity, and occasionally it has been observed to be stained with blood. The substance of the brain itself has not been found to have undergone any material change; it has sometimes been of a reddish hue, in bands and stripes occasionally; but this has not been regarded as a matter of much importance, inasmuch as other parts of the body have been similarly colored. This appearance is ascribed to the changes that have taken place in the blood. The spinal cord and medulla oblongata have been examined; but we are not prepared to say that they undergo any change that is peculiar to this disease, or necessary in the progress of it. Another part of the nervous system has attracted particular attention, because the prominent symptoms of cholera seem very readily to be referred to it—I mean the semilunar ganglion, and the ganglia that govern the circulation and secretions of the intestinal canal. Most observers who have paid particular attention to the pathological anatomy of cholera, have not failed to make explorations in this direction; and, so far as investigation has gone, they occasionally state that these parts were softened, or of unnaturally deep color, or were red, or had undergone some change that seemed to be at first view important. Still, the general summing up of the account stands thus: no special lesion has been discovered in these parts that has the character of constancy; nothing has been noticed that can be distinctly claimed as having any definite relation to the phenomena of cholera. This is the more interesting, as you will see by and by, because it seems almost necessary to refer many of the symptoms to disorder beginning here.

Then, if we turn to the alimentary canal, we shall find there very marked changes. It is upon this part of the body that the disease seems to expend its principal force; and after death we should naturally expect to find that this diseased action had left its mark; and so we do in certain of the cases. Begin, for example, with the mouth: it is discovered that a change has begun in the fauces; that the secreting follicles, in many instances, are elevated and reddened, and occasionally contain a puriform fluid; they are to be seen in this condition about the base of the tongue and upon the tonsils. The œsophagus has been examined, the lower portion of it, and sometimes its whole extent has been found denuded of its epithelial covering; at times it has been found vividly injected, more rarely covered by a whitish consistent exudation. At other times no material change is noticed Coming to the stomach, we find that in many instances, at least, there are changes of a most marked character; and yet in a considerable number of those who die of this disease, the mucous membrane is only observed to be pale. You will perhaps get a better idea of what actually takes place in this organ from some figures I have here, illustrating the various conditions. Here, for example, is a figure which represents two stomachs; one, you observe, is of rather a pale hue, yellowish, and studded all over with little elevations; the other is remarkably red—red by what is called punctated injection. Both these show conditions observed after cholera. In one the vascularity seems to be in considerable degree exhausted; in the other it still remains. In the second case, the organ was decidedly contracted, and red over the whole surface, but particularly upon the tops of the rugæ. From the first, you will get an idea of one of the most striking changes observed in the alimentary canal of persons who have died of this affection: it is in the enlargement and elevation of the solitary glands, which are seen standing out in groups, filled with a fluid material, the nature of which varies in different cases. These sacs are sometimes ruptured, leaving little pits in the membrane that appear as if they had been cut with a little punch. The sacs are analogous to the glands of Brunner in the intestinal

canal. You have not, perhaps, all become familiar with the fact that there is in the stomach a system of sacs resembling those associated with the lacteal system of the intestines. Here is another illustration; it is one of the plates of Pirigoff, showing a moderate amount of vascularity. You observe in this what you would hardly look for—the food remains entirely undigested in the stomach after vomiting has been very considerable; the paper attached states that the Russians eat mushrooms considerably during Lent, and in this case they had been eaten, but not digested. There is some punctate injection through the whole of the interior of this organ. Another plate by Pirigoff which I here show you, seems to imply that the stomach may be subject to diseased action far greater than that represented in either of the other two figures. Here are extensive spots of injection and ecchymosis, and upon those spots is to be seen a membranous exudation of the granular sort, analogous, when examined microscopically, to the exudation produced by diphtheria. This is a striking figure, and represents a rare condition; it is rare to find the inflammatory action reaching this point. In many cases the stomach scarcely shows any change. In general, the more protracted the disease, the more marked will be the evidences of lesion in this organ. Almost invariably, however, when the mucous membrane is examined with care, it will be found to have undergone a little increase in thickness; it will look at least a little watery and pale. In a considerable number of instances, where no other marked change is noticed, the mucous membrane has undergone a mammillonation. You will remember what this term means, from what I have already said in speaking of mucous inflammations—little flattened elevations that cover more or less of the surface, occurring in different parts of the organ in cholera; but in other affections generally found about the pylorus, and extending back towards the middle line of the stomach. These things show very clearly that there has been a pretty decided change in the circulation here, and that change is at least hyperæmia—probably an inflammatory hyperæmia.

On the mucous surface of the small intestines the lesions are analogous to those of the stomach. In many instances there is nothing which particularly attracts attention. The membrane is pale, or there is only slight increase of vascularity here and there. But even in such cases a careful examination will disclose some œdematous swelling of the valvulæ conniventes, and by the aid of a lens it may be seen that the solitary and Peyerian glands are enlarged. There is also extensive exfoliation of the epithelium. The more striking changes belong to the more advanced stages of the disease and the more protracted cases. They are arborescent injections, varying in extent from a few patches to large tracts of the mucous surface; ecchymosis of a dark brown, almost black color, always in patches, but often of some inches in extent; the solitary glands swollen by a fluid effusion within their sacs, so that they have attained the size of a large bird-shot, or they have been ruptured by the accummulated fluid leaving pits in the mucous surface; the Peyerian patches rendered distinctly visible, and often elevated by a similar condition of the individual glands; diphtheritic exudations in spots of limited extent, chiefly noticed in the lower parts of the ileum; granular matter infiltrated into the tissue of the mucous membrane, probably diphtheritic in character; the spots so affected, often recognisable by their whitish or yellow color; ulcers half an inch or more in extent, through the mucous membrane only, resulting equally from the ecchymotic effusions, and from the infiltration of granular matter into the tissue. All these lesions I will now try to make you familiar with by putting into your hands drawings, plates, and sections of dried cholera intestines, with some explanatory remarks.

In this first illustration, you observe that the mucous surface of the intestine is very red, irregularly red; and that the redness does not always entirely encircle the intestine; while in this dried specimen you will remark that the injection is arborescent and uniform throughout the length and circumference of the piece. The vascularity, in these cases is greatest in the lower part of the ileum; still the whole length of the intestine may be injected.

Here (second illustration), you may see that while there is vascular fulness enough, there are spots of considerable extent where all trace of vessels is lost; and yet these portions are of a very dark blood-color. Here the blood has escaped from its vessels, and is outspread in the tissues of the intestine. So, too, if you examine this piece of dried intestine, you will find portions of it almost black; and if you hold it between your eye and the light, you will notice that these dark portions are almost opaque, while other parts are very red, with vascular injection. (Several illustrations and specimens exhibited, including the plates of Cruveilhier, Lebert, and Pirigoff.)

In this piece of intestine, you may notice round, yellowish-white bodies grouped into forms like those of the Peyerian patches. They are the so-called glands which constitute those patches, unnaturally swollen. The solitary glands are not here visible; but in these plates you will find both varieties represented as very prominent. Perhaps the most common alteration in the intestine after the exfoliation of the epithelium, is the distension of these little saccular bodies with fluid, or the occurrence of the pits left by their rupture. That this swollen state is not the result of mere imbibition, may be inferred from the appearances represented in this figure (one of Pirigoff's plates). The intestine is sprinkled over with little whitish pin-head elevations, each one of which is a swollen solitary gland; and each one is surrounded by a little zone of lively injection or ecchymosis. The same inference will follow the examination of the contents of these distended sacs. You notice that few of them are transparent, but that they are either opaline or opaque. They look as if they were filled, or partly filled, with pus. Indeed, some observers have described their contents as pus. Most of them, however, are filled with a fluid which is loaded with granular matter. I have not examined these granules by tests, to ascertain whether they are composed of oily or protein material, and do not know that anybody has; but when we remember that the alkalinity of the intestinal fluids is lost, and that the bowels have, long before this diseased action is completed, been washed clean of all the fatty constituents of food, we can hardly find ground for supposing they can be composed of oil. If, then, these granules should be found to have their origin in the same action which produces the diphtheritic patches, it would confirm the opinion that the intestinal hyperæmia is in some sense inflammatory. When, just now, I spoke of the frequency of this lesion, I included in the remark not only that degree of enlargement which is distinctly visible, as in these several plates and specimens, but also that small amount of distension which will require the lens to make it apparent. Here is a figure (by Pirigoff), in which these bodies are shown as when magnified eight or ten diameters, and in some the fissures caused by their rupture are distinctly seen.

Now, I show you some illustrations of the exfoliating epithelium. The late Prof. Horner, of Philadelphia, was among the first who noticed this denuding of the mucous lining of the intestines in cholera. The epithe-

lium sometimes falls off in pretty large sheets, or is found only partially detached. Injected preparations from the cholera of one of the later epidemics have been prepared and mounted for microscopical examination by Dr. Neil, of Philadelphia, which show this process of exfoliation very perfectly. By the kindness of Dr. Neil I possess some of these preparations, which show that the exfoliation extends even to the villi.

Of the diphtheritic exudation, I here show you several examples. They belong to the later stages of cholera, and are often found in those who die in the typhoid period. They are usually patchy, and often are found on an injected or ecchymotic portion of the membrane.

Here you may notice some oval patches about half an inch wide and three-quarters of an inch in length, of a yellowish color, that distinguishes them from the injected membrane in which they are set. These are circumscribed spots of granular infiltration. The mucous membrane is undergoing the changes which naturally end in the ulcers of which I have spoken. In another plate which I here show you, the process of sloughing, after circumscribed ecchymosis, is represented. You notice that the dead mucous membrane is raised, and partly detached from the muscular layer, still retaining something of the blackened appearance which the ecchymosis has produced.

If we turn for a moment to the mesenteric glands, we shall find that in the disease which has so flooded the intestines, they have not wholly escaped. They are often more vascular than in their normal state, and frequently a little enlarged. This figure (Pirigoff) represents them greatly increased in size. They are not often seen so large as they are here represented. These glands are also subject to the same kind of granular infiltration as that which affects the intestine.

On the peritoneal surface of the intestine, little has been noticed. Pirigoff has made more of a study of this part than any other author I have consulted. He thinks in the beginning there is a good deal of vascularity in the sub-peritoneal tissue of the small intestines; and that, as the disease advances, it diminishes until it has passed through the several grades represented in the four figures of this plate. In general, the peritoneal surface is described as dry, and the vascularity is seen only indistinctly through the membrane. There has been described, also, on this peritoneal surface, a deposit of fine granular matter which will form into a sort of froth or lather, when moistened and rubbed with the finger. This peculiar exudation, however, has not been noticed by many of those who have studied the disease with most care.

In the large intestines we discover changes analogous to those observed in the small. Here is a figure to represent the vascularity that occurs in this disease. It is partly produced by blood effused, and partly by blood still in the vessels. In general, the whole of the large intestine is not found in the same condition; portions may be pale, and others reddened by ecchymosis, and others by vascular injection, generally of the arborescent rather than the punctated variety. The granular deposit I referred to as occurring in the stomach and small intestine, is noticed also in the large intestine; and where incorporated with the mucous surface, it is not uncommon to find portions sloughing away or rather ulcerating in consequence of the change already described. Here is an exudation upon the surface of the mucous membrane of the large intestine, which seems to be made up partly of mucous, and partly of a kind of fibrinous matter. The mucous membrane is not vascular, but has become pale. These matters are doubtless occasionally discharged by stool. You will not infer, from what I have now said, that you are to expect to find such marked lesions as these in all cases you may examine.

The condition of the liver of those who have died of cholera, we shall find is not uniform. In general, this organ is pale and exsanguinated; occasionally it is found to be moderately engorged with blood; but in the greater number of instances there seems no excess of blood, and no marked change. Pirigoff has found what has induced him to suppose that the liver undergoes occasional fatty degeneration in circumscribed and limited portions; and he has found also (I anticipate a little) an inflammatory action in the gall-bladder, with exudation of diphtheritic membrane. Both of these lesions are represented in this plate. But the changes in the liver seem not to be very important. The gall-bladder is generally found full of bile, and the bile is, for the most part, in appearance, healthy; occasionally it is of a darker hue than usual, occasionally greenish; and in rare instances—one in thirty or forty—no bile proper will be found in this receptacle, but a glairy fluid; and in one instance, reported by Pennock and Gerhard, purulent matter was found here—and that may correspond with the patchy exudation on the inner surface of the gall-bladder.

Reports of Hospitals.

NEW YORK HOSPITAL.

Case of Dissecting Aneurism of the Aorta, with Plugging of the Arteria Innominata, by a Portion of the Internal Coat of the Vessel, and Rupture of the Pericardial Sac.

Under the care of Dr. W. H. Draper.

The patient was a man forty years of age, and had always enjoyed good health. Until within the last five years he had led a very active life, and been exposed to considerable hardship. Five years ago he came to this city, and since that time his occupation has been confining and sedentary. His general health, however, appears to have been fair; and nothing in his history, previous to the morning of his admission to the hospital, indicated the existence of any disease of the heart or large vessels. About four days previous to his death, he said to some friends that he was much depressed, and apprehensive that he was going to die suddenly, as his father did. He gave no reason for this fear.

On the morning of the day of his death, he left his office to transact some business at one of the courts. While on his way thither, in company with a police officer, and while laboring under some degree of mental excitement, he suddenly fainted and fell into the arms of the officer. He did not lose his consciousness. He was conveyed immediately to the New York Hospital, and on his arrival, complained only of great exhaustion and a sense of "*coldness of the abdomen.*" He did not complain of pain or dyspnœa. Dr. Emerson, the house physician, examined him carefully soon after his admission. He discovered a short, rude, systolic murmur at the base of the heart. He observed that there was no radial pulse in the right arm; that the cervical veins were considerably enlarged; and that the face had a cyanotic hue. When I saw the patient late in the afternoon, his face was pallid, the pulse was regular—about 100 in the minute, and feeble; entirely absent in the arteries of the right arm and in the right carotid. The jugular veins were very much enlarged, though not pulsating; and the systolic murmur at the base of the heart was plainly recognisable. This murmur was more diffused than is ordinarily the case in simple obstructive disease of the

aortic valves, and the area of mediastinal dulness was considerably increased. From these symptoms, and from the history which the patient gave of his attack in the morning, it was suspected that there had been a rupture of an aortic aneurism, and that the progress of the hæmorrhage had in some way been temporarily arrested. The most absolute quiet was enjoined, much to the astonishment of the patient, who remarked that he then felt perfectly well, and would be able to attend to his business the next day. About an hour after this advice was given, the patient sat up in bed to take some nourishment, and while feeding himself, fell back suddenly and expired. The autopsy was made on the following day. On raising the sternum, the pericardium was found enormously distended with blood. The heart and the arch of the aorta were carefully removed. The blood which filled the pericardium weighed two pounds. The heart was hypertrophied, and there was a considerable dilatation of the left ventricle; the aortic valves were elongated by the slitting down of their attachments to the artery. The aorta for about four inches was dilated to double its normal diameter. The valves, as well as the coats of the vessels, were atheromatous. About four inches beyond the valves, there was a transverse cicatrix in the aorta about an inch in length. This cicatrix appeared to be the result of old arteritis. About half an inch beyond the valves there was a rupture of the internal coat of the vessel extending through its entire circumference; through this rupture the blood dissected its way between the internal and middle coats, and forced a passage into the proper channel of the artery through an opening in the cicatrix above mentioned. A portion of the free margin of the internal coat was forced into the arteria innominata, effectually plugging that vessel, and causing the loss of pulsation in its branches before described. Near the origin of the coronary artery a small rupture was found, extending through all the coats of the artery; and through this opening the blood found its way, and dissected the visceral pericardium around the origin of the aorta and over the right auricle for a space three inches in diameter. At the time of the patient's death, the visceral pericardium gave way at a point about opposite the rupture in the coats of the vessel just described, and the pericardial sac was instantly filled with blood.

In establishing a theory for the explanation of the lesions in this case, we must start, probably, with the cicatrix, which was evidently the result of an old arteritis. At that point there was a decided contraction of the vessel, and between it and the valves there was a corresponding dilatation. In consequence of this dilatation there must have been more or less insufficiency of the aortic valves, and consequent dilatation of the left ventricle. It seemed altogether probable that the rupture of the internal coat of the artery, and its subsequent dissection, took place at the time of the syncopal attack in the morning; and that the final rupture into the sac of the pericardium occurred at the instant of death.

Test for Rum.—Mix a little of the rum to be tested with about a third of its bulk of sulphuric acid, and allow the mixture to stand. If the rum is genuine, its peculiar odor remains after the liquid has cooled, and even after twenty-four hours' contact may still be distinguished. If, on the contrary, the rum is not genuine, contact with sulphuric acid promptly and entirely deprives it of all its aroma.—*Druggists' Circular.*

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Feb. 21, 1866.

Dr. James Anderson, President, in the Chair.

DISCUSSION ON CHOLERA.

Prof. J. T. Metcalfe opened the discussion with some remarks upon the Diagnosis of Cholera. He would assume that the *materies morbi* was specific in character, introduced into the system in some instances by the respiratory mucous membrane certainly, in others by the digestive tract, and operated more particularly upon the blood and ganglionic nervous system. Also that it was capable of very great multiplication, as in the so-called zymotic diseases. As yet, however, nothing was capable of demonstration. But, be its essence what it may, it certainly had a tendency to follow the great routes of travel, although he would not assert the doctrine of *personal contagion.* Considering incubation as an element in a choleraic problem, three days may be regarded as the usual period; although it is possible to be no more than six hours. Not quarantine, influence of season, adverse winds, great elevation above the sea-level, or any known atmospheric condition, has proved any barrier. An attack may be repeated in the person of a single individual, and with undiminished severity. It may successively appear, as in the town of Leith in the years 1832 and 1849, under the very same roof, within a few feet of the same spot. The first cases of any general epidemic appear at the outer commercial edge of the country invaded. The favoring influences are a temperature above 60° Fahrenheit; the Russian and Scandinavian epidemics are exceptions; the heat, filth, over-crowded huts, deficient nutriment, and impure snow-water, are sufficient causes in explanation of its prolongation into the winter. Dr. Snow has found the mortality three and a half times as great among those using dirty water as those more particular in this respect.

The three varieties of this disease, fatal inversely in the order mentioned, are:

1. Where the loss of the animal heat and impaired circulation show themselves slowly, and where the precursory diarrhœa has lasted several hours, or even days. This is the most frequent form.

2. Where the algid phenomena manifest themselves after a few characteristic discharges.

3. Where these phenomena are present from the first; vomiting and purging may be absent, but autopsies discover the primæ viæ filled with fluid.

The loss of animal heat is probably due to the anæmic condition of the lungs. Death may occur within a very limited time; in India, according to an observer, "hale, hearty men were cramped, collapsed, and dead within five minutes." Any debilitating cause is an unfavorable prognostic element.

The prophylactic measures to be adopted refer to the period before the approach of the pestilence, and the means necessary for adoption before the earlier stages have merged into the algid state. For the former we must depend on quarantine, and sanitary regulations of the most efficient nature. For the latter we must expect success only from the arrest of the painless diarrhœa.

The post-mortem appearances, though interesting, shed no ætiological or therapeutical light upon the disease.

Recovery may be prompt and uninterrupted, or it may be through tedious sequelæ of adynamic febrile

reaction resembling typhoid fever. This condition may end in death by coma, by thoracic complication, by dysentery, or by exhaustion.

Treatment.—To control the painless diarrhœa, recourse must be had to rest in bed, warmth to the body. Some one of the cordial astringents of which opium forms a part is usually sufficient, when conjoined with quiet, pure air, and proper diet. For the cramps, frictions of extremities, hypodermic injections of morphia, and anæsthetic inhalations may be essayed. For the vomiting, cracked ice, cool effervescent drinks, epigastric warmth, and counter-irritation, are to be employed. Here rapid vesication, followed by the application of morphia salts, has sometimes given relief. Cold water freely given, is not contra-indicated; since there is a chance that all will not be ejected in the frequent vomiting.

For the collapse, it is our custom to use cold water internally, warmth to the surface, and eschew the large doses of opium; since, with returning vitality, cumulative poisonous effects may be manifested. In the reaction and secondary fever, general principles of treatment come in for employment. In convalescence, the patient's diet must be carefully watched. In conclusion, our wish for thorough instruction is limited to the following questions:

How most surely shall we prevent the disease from existing pestilentially? and

How, in the event of its prevalence, can it be most successfully managed?

Dr. J. H. Griscom remarked that, in his opinion, there were two special influences ever at work in the causation and extension of this disease.

The one exists in a general atmospheric condition, the character and origin of which are as yet undetermined. The other is local in nature, origin, and manifestation. To make his meaning more apparent, and perhaps more forcible, he would let the atmospheric and terrene influences each severally represent a blade of "the shears of Fate." Together, and properly adjusted, they were effective, separate, and remote—comparatively weak for mischief. The terrene blade is not unfamiliar, for have we not continually present the emanations of undrained, overcrowded tenements, reeking with filth, unswept streets, noxious manufactories, and the thousand other nuisances of neglected cities? To demonstrate the extent and efficacy of these prolific generators of pestilence, he would merely advert to the fact, that of the 25,645 deaths occurring in the city in 1864, more than one-half, on analysis, should be attributed to the operation of the above-enumerated and similar causes. The localities of cholera are peculiar, its favoring circumstances well understood, its victims almost exclusively of a certain class, and these are all identical with those which are known to be especially prone to, and provocative of typhus fever. Why, on board of the emigrant ship, does this scourge avoid the cabin stairs, and seek the hatchway? The line of division is certainly not over-definite; but still the fact is notorious that the steerage acts the part of the germinating soil and hotbed for the growth of that most serious form of the malady, *ship-fever*. As with ships, so with cities.

In opposition to the prevalent idea that cold and frosty weather was inimical to the origin and progress of the choleraic poison, he would cite the following instances. Among the 1200 inhabitants of the village of Cambroc, not far from Coatbridge, in Scotland, who were chiefly workers in iron, the cholera appeared on the night of Dec. 31st, 1848, and continued to rage until the end of the succeeding February. The type of the disease was more severe than in any other locality known to the official reporter, Dr. Sutherland.

Out of the whole number, 1100 were attacked. This outburst of the disease, we are significantly informed, took place after the people had been drinking for several days.

The town of Hamilton is another case in point. Here the cholera prevailed from December 24th, 1848, to March 7th, 1849. In a population of 9000, there were 440 cases and 251 deaths.

This epidemic, substantially, says Dr. Sutherland, when speaking of its prevalence in Edinburgh and Leith, followed the identical track of the fevers by which those towns are scourged.

But in an epidemic district all do not perish. Local influences accordingly come in for a share of attention. These may be specified as follows:

Overcrowding, dampness, filth, want of ventilation and atmospheric pollution, proximity to graveyards, offensive sewers, pig-styes, &c.; narrow, closely built, and confined neighborhoods, bad water, &c.; a subsoil impregnated with organic matter from filthy streets, cesspools, &c.; imperfect sanitary works.

The city of Edinburgh, the first part of the United Kingdom attacked by cholera in 1849, was badly off, even in regard to the removable causes of disease; but the various nuisances were speedily abated through the vigorous action of the local authorities. As a result, the mortality was diminished about one-half below that of the epidemic in 1832; while in all those towns where equally effective measures had not been adopted, almost the exact reverse was the fact. As in our city, the cholera of 1832 in the mortality lists attained a total of 3513, and in 1849 to that of 5071, it is fair to presume that the wisdom of the Scotch was lost upon the American. He would adduce another still more instructive example within the compass of a small town, in proof of the value of preventive sanitary science.

In Taunton, whose population did not much exceed 16,000, were situated at one end of the town the workhouse, and at the other the county prison. In the workhouse the refuse was conducted by a sewer into a garden cesspool, which was uncovered until just before the cholera began. Here, in a place where no ventilation was provided, the ceiling only 8 feet 9 inches high, the water-closets opening into the wards or staircases, and no appliances to promote personal cleanliness, there were 276 inmates. The 3d of November, 1849, witnessed the first case passing into hopeless collapse in ten minutes; in two days 42 cases and 19 deaths occurred, and in one short week 60 were swept away.

In the county jail, each prisoner enjoyed in his cell 819 cubic feet of air, with ample ventilation besides, and every convenience for personal cleanliness; the last of which was strictly enforced. In consequence, there occurred of cholera and diarrhœa not a single case. He also called attention to the boys' and the girls' schools, where the inmates of the former escaped with a less mortality, because they gained more ventilation by their persistent onslaught upon the window-panes. Among the inhabitants at large, some cases of diarrhœa were noticed, but not one of cholera.

The travelling community are not altogether responsible for the introduction of cholera. It does not always appear first upon the borders of the city, at the wharves and docks, the places of direct commercial contact; on the contrary, it appeared in the very heart of our city among the class peculiarly susceptible to typhus fever; even here following an erratic course, and demonstrating the universality of the atmospheric element. In 1832, there were found centres similar in point of filth from which the disease simultaneously radiated. Dr. Buchanan details the circumstances under which the cholera first appeared in Nashville, Tenn., January 20th, 1849

The subsidence of a partial inundation of the lower part of the city left a few houses almost surrounded by water. In one of them three fatal cases occurred in the persons of three intemperate men, and with these began the epidemic. The most ignorant and indigent were the greatest sufferers. He also adduced Dr. McPheeter's testimony in regard to localities in St. Louis during the same period, in which instances are cited, showing the relationship of the disease to violated sanitary laws. The foreign poor population, who are the most notorious offenders against these laws, furnished the largest number of victims. The authorities of that city were so apathetic that mass meetings were held to force them, in language not to be misunderstood, to do their duty or resign. A committee of health, composed of private citizens, received the delegated power of the municipal authorities, who were too fearful of assuming responsibilities from motives of economy, and they did what the city authorities should long before have done.

According to the authority of Dr. Bell, the first case in Louisville, Ky., occurred May 1st, 1849, at a house located below the summit of the second bank of the river, in the immediate neighborhood of yards receiving the washings of the more elevated grounds above. This was the same place from which the pestilence started in 1832 and 1833.

Out of a family of nine persons, who undertook to lodge in two newly plastered rooms, twelve by fourteen feet in size, only one survived at the end of the fifth day. His life was despaired of, but having been removed to a hospital, he recovered slowly.

Dr. Bell also describes a locality where, in certain malarial portions of the city, the cholera made fearful ravages, but by promptly removing the causes this disease was checked. In one case, the citizens who labored diligently in the daytime to render the situation a healthful one, escaped the contagion, while those who, contrary to instructions, exposed themselves to the night air, died. Those localities which bore the brunt of the visitation in 1833, and were since redeemed, escaped in 1849 or '50, while those which were unimproved by any sanitary interference were again invaded.

In Sandusky, Ohio, nearly six per cent of the whole population fell victims. Here a mental influence operated, beyond a doubt; since, so great was the panic, that business was suspended, and the post-office closed.

In Buffalo, according to Dr. Flint, the epidemic of 1849 prevailed with the greatest virulence in the streets close to the canal, densely inhabited, abounding in poverty and vice; secondly, in that portion known as "the Hydraulics," where miasmatic influence was somewhat rife, and the population not likely to escape epidemics; and thirdly, in a certain section almost entirely appropriated by German laborers.

The history of the epidemic in New York during the same year proved that the filthy, overcrowded localities held out superior attractions.

He extolled the prudential anticipatory course adopted by the Philadelphia authorities in 1849, whereby a total of 6573 nuisances was abated within a year. Here the cholera was moderate in type and extent. The first outbreak occurred May 30th, on board of a filthy canal boat; it ceased as an epidemic on the 18th of August, although some sporadic cases were announced up to September 22d, and summed up an aggregate of 1022 deaths. In New York, during the same period, the mortality was 450 per cent. greater. Again is Philadelphia leading the van.

The latter city possesses another hygienic advantage in the fact that, with a population of 100,000 less, she has 30,000 houses more than New York.

The case of Baltimore, where the most vigorous measures were adopted in the matter of purification, may also be cited in corroboration of our views. Here the cases were so mild that scarcely any alarm was created.

The communication of the U. S. Legation in Turkey, addressed to the Hon. W. H. Seward, at Washington, urging the most rigid quarantine regulations, has reawakened attention to this subject. And yet, according to the admissions of the accompanying newspaper, the notoriously rigid quarantines of the East have failed utterly to prevent the spread of the disease. Dr. E. M. Snow, of Providence, proved the futility of the absolute quarantine there in 1832 to prevent the introduction of the disease: "but the internal sanitary measures were so effectual, that the cholera did not become epidemic there in that season, and but few cases occurred."

Dr. Worms, physician in chief of the Military Hospital of Gros-Caillon, in an essay read before the *Academie de Médecine* of Paris, says that he has succeeded in materially ameliorating the condition of the patients by the use of *mineral lemonade* (giving them a double dose of acid), to the exclusion of all other medicines. The doctor had tried this method more thoroughly in the choleraic visitation of 1853 and 1854 than in that of 1849, with proportionately more gratifying results. "Two, three, or at most four grammes of sulphuric acid," continues our author, "with a thousand grammes of water, or a mucilaginous vehicle with one hundred and fifty grammes of simple or raspberry syrup, makes a drink as agreeable and innocuous as ordinary lemonade, and furnishes at the same time a medicine cheap, easy of preparation, and everywhere accessible.

"In cases of prodromic diarrhœa, and, according to the greater or less gravity of the case, I add three four, or at most five grammes of concentrated sulphuric acid to a kilogramme of a sweetened decoction of salep. A glassful every hour is to be taken, and four of them will seldom be found necessary."

The use of white wines, or of champagne, during an epidemic is permitted; but beer, brandy, and alkaline mineral waters proscribed.

In confirmed cholera, Dr. Worms enjoins the most complete repose, administers every half hour a glass of the lemonade, of five to ten *grammes* of the acid to a *litre;* taking the moment immediately after vomiting. Shampooing is practised only during the cramps; and wine with ice is used at discretion.

The lemonade, according to our authority, though it suspends the alvine evacuations, tends to promote the vomiting; but this he looks upon as indicative of a happy termination.

Dr. Griscom stated in explanation that a gramme was about 15 1-3 grammes, Troy measure; that a thousand grammes equalled 2 lb. 8 oz. 1 dr. and 4 grs. Troy; and a litre a fraction over two pints.

Asiatic Cholera in Virginia.—"It is a noteworthy and astonishing fact," says the *Lancet*, "that during the forty years in which this scourge has afflicted the earth, no case of Asiatic cholera has ever occurred in the basin of country embracing the mineral springs of Virginia."

Death of Professor Shuh.—The Vienna Journals announce the death of Professor Shuh, which took place Dec. 22d, from an attack of virulent typhus.

Horse-Flesh as Food.—Markets for the sale of horse-flesh have been officially established at Paris, Vienna, Stockholm, and Copenhagen.

Progress of Medical Science.

The Temperature of the Body as a Means of Diagnosis in Phthisis.—Prof. Sidney Ringer, of London, in a work recently published on this subject, advances the following propositions:—1. There is probably a continued elevation of the body in all cases in which a deposition of tubercle is taking place in any of its organs. 2. This elevation of temperature is probably due either to the general condition of the body (tuberculosis) or to the deposition of tubercle in its various organs (tuberculization). 3. This elevation is probably due to the general condition (tuberculosis) rather than to the deposition of the tubercle (tuberculization). 4. The temperature may be taken as a measure of the amount of the tuberculosis and tuberculization, and any fluctuations in the temperature indicate corresponding fluctuations in the severity of the disease. 5. The temperature is a more accurate indication of the amount of tuberculosis and tuberculization than either the physical signs or the symptoms. 6. By means of the temperature we can diagnose tuberculosis and tuberculization long before the physical signs and symptoms are sufficient to justify such a diagnosis. 7. By means of the temperature we can diagnose tuberculosis, even when during the whole course of the disease there are no physical signs indicative of tubercular deposit in any of the organs of the body, and in which cases the symptoms (apart from the temperature) are inadequate to enable us to arrive at such a diagnosis. 8. It is probable that by means of the temperature we can conclude that the deposition of tubercle has ceased, and that any physical signs that are present are due to obsolescent tubercle and the chronic thickening of the lung-tissue between the tubercular deposit. 9. It is probable, though farther observations on this point are necessary, that the temperature of the body affords a means by which we can diagnose between diseases in which the symptoms and physical signs are either too scanty or too much alike to enable us to decide between them.

Iodine in the Treatment of Uterine Leucorrhœa.—"We have lately observed a plan," says the *Lancet*, "which is being pursued by Dr. Murray at the Great Northern Hospital, and which promises to be a very useful addition to our means of treatment in this very troublesome condition. Dr. Murray first ascertains by means of the speculum, that the discharge proceeds from within the uterus. He then introduces a small short-haired brush (much like that used for washing phials), by a screw-like motion, so that the thick phlegm-like layer on the uterine wall is swept off with every turn of the brush. When this reaches the fundus, he steadily withdraws it, charged as it is with the mucous deposit. Its place is then taken by a gum-elastic catheter with several apertures, through which is injected a lotion consisting of one part of the compound tincture of iodine to two parts of water. The uterine wall is thoroughly washed with this." Dr. Murray, after numerous trials, is well satisfied with the success which he has had.

Balsam Peru in Itch.—Dr. Koch, of Gaildorf, speaks very highly of the use of balsam of Peru as a remedy in itch; a cure generally results in eight days. It can be used on the most tender skin.—(*Wurtemb. Corresp. Bl.*, 1864, 41). *Viertel-Jahrschrift.*

For Chronic Inflammation of the Glands of a Tuberculous, Scrofulous, Syphilitic, or Anœmic Character, which have not yet advanced to softening of the gland or reddening of the skin, Prof. Sigmund recommends a mixture of Tinc. iodinii and tinc. gallæ, equal parts; or where the skin is very tender, two parts of the latter to one of the former. This may be painted on two or three times daily; and five minutes after the application cold compresses may be applied if necessary. If the outer skin becomes too thick by frequent use of the remedy, the local use of lard is the simplest treatment. The tincture is said to be very rapidly absorbed, and after four or five applications it may be found in the urine or tears.—(*Wien. Med. Wochenschrift*, 1864, p. 49.)—*Prag. Viertel-Jahrschrift, Jany.* 1866.

Ox-gall for tœnia is recommended by Löwenthal, of Berlin. A tablespoonful of a mixture of two drachms of inspissated ox-gall and four oz. of camomile tea, or a teaspoonful of fresh ox-gall in a half oz. of cam. tea, to be taken morning and evening.—(*Prcuss. Ver. Zeitg.*, 1863, p. 16.)

The Treatment of Diabetes by Tinc. of Iodine was tried by Beranger Ferand, in two cases, with partially favorable results. 5–10–20 drops of the French tincture were used in 100 gram. of pure water, about ten minutes before meals. After its use a diminution of specific gravity and of the sugar was regularly observed. In one case, in eight days the specific gravity fell from 1.028 to 1.022; the sugar from 6.80 grm. to 2.50 grm. As soon as symptoms of iodism (diarrhœa, salivation, frequent blowing of the nose) appeared, the treatment was stopped; and on their subsidence, the specific gravity and sugar again increased. In two other cases the same gentleman used *inhalation of oxygen*, as recommended by Demarquez. At first twenty litres of oxygen with a like quantity of common air; afterwards the same amount of *pure oxygen* was inhaled morning and evening. Under these inhalations the thickness of the urine and the amount of sugar contained diminished rapidly, while at the same time the patient experienced great relief by the decrease of the tormenting thirst. B. F. does not think this treatment will *cure* diabetes, but believes it to be of great benefit.—(*Bull. Gen. de Ther.*, 1865).—*Viertel-Jahrschrift.*

Deodorization and Disinfection.—Dr. T. H. Barker, in a lengthy and interesting article (Hastings Prize Essay, for 1865), published in the *British Medical Journal* (January, 1866), arrives at the following conclusions: For the sick room, free ventilation when it can be secured, together with an even temperature, is all that can be required. For rapid deodorization and disinfection, chlorine is the best agent known. For steady and continuous effect, ozone is the best agent known. In the absence of ozone, iodine, exposed in the solid form to the air, is best. For the deodorisation and disinfection of solid bodies that cannot be destroyed, a mixture of powdered chloride of zinc with sawdust is best. After this, a mixture of carbolic acid and sawdust, ranks next in order; and, following on that, is wood ashes. For the deodorisation and disinfection of infected articles of clothing, etc., exposure to heat at 212° Fahr. is the only true method. For the deodorisation and disinfection of substances that may be destroyed, heat to destruction is the true method.

The Effects of Chlorine upon Vaccine Virus.—Dr. J. P. Loines, of N. Y., as the result of a series of experiments, has come to the conclusion that chlorine, in quantity sufficient to be irrespirable, has no effect upon the infecting property of the vaccine crust; and, reasoning from this analogy, is of the opinion that the same is the case with the poison of variola.

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FOREIGN AGENCIES.

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New York, March 15, 1866.

THE METROPOLITAN HEALTH BILL.

THE earnest desire of the medical profession of this city, and of the community at large, has at length been gratified by the actual passage of a bill for the protection of the health and life of the community. The urgent want for such provisions as are now embodied in the Metropolitan Health Bill has so long been felt, and so many measures have been taken by one party and another to effect the grand object, and the failures in their accomplishment have been so numerous, that it is really a matter of surprise, even to those who were reasonably sanguine in the matter, that we now have a law which, by the comprehensiveness of its scope and the liberality of its design, is well calculated to meet all the requirements of the case. It is true that the present bill is nothing more than the modification of the original one; but, after all, the alterations which have been made can have no direct tendency, as far as we can see, in interfering with its usefulness. The length of the bill forbids us giving our readers more than a mere synopsis of its provisions.

It creates a Metropolitan Health District, which has the same boundaries as the Metropolitan Police District. This district is in charge of a Board of Health, consisting of four Police Commissioners, the Health Officer of the port, and four Sanitary Commissioners—three of whom must be physicians, and one a resident of Brooklyn. The four Sanitary Commissioners shall hold office "respectively for the terms following—namely, one for one year, one for two years, one for three years, and one for four years; and until their successors shall be appointed and qualified." The term of office of each of the Commissioners, "after the expiration of the terms aforesaid, shall be four years."

The Board is to elect its own officers, and its President shall have all the power and authority given to the "City Inspector, in the six hundred and forty-sixth chapter of the laws of 1865 (passed May 1, 1865), in respect to the making, awarding, or executing of a contract or contracts for street-cleaning, or any matter thereto pertaining."

The Sanitary Commissioners are to receive a salary of two thousand five hundred dollars per annum, and the Health Officer and Police Commissioners five hundred dollars per annum, as members of the Board; and all are forbidden to accept any other political or municipal office, or any nomination for such office, during their terms. Any member may be removed by the Governor, under the law relating to the removal of sheriffs.

The Board of Health has authority to appoint a Sanitary Superintendent, who must be an "experienced and skilful physician," and who shall, under its direction, "exercise a practical supervision" over all the agents of the Board, except the police. This Sanitary Superintendent is to receive a salary not exceeding five thousand dollars, and is to have two assistants at three thousand five hundred dollars each, one of whom must reside in Brooklyn, and perform the duties of Sanitary Superintendent for that city. He is to report in writing to the Board weekly, or oftener, on the work of his subordinates, and the sanitary condition of the district.

There are, further, to be appointed by the Board, fifteen district inspectors, ten of whom must be skilful physicians, acquainted with the districts in which they serve; and each of these is to report in writing twice each week, "stating what duties he has performed, and where he has performed them, and also such facts as have come to his knowledge connected with the purposes of this act, as are deemed worthy the attention of said Board, or as its regulations may require of him."

The amount of authority vested in the Board is immense; absorbing and exercising as it does exclusively all the powers and duties in regard to the sanitary management of this city and Brooklyn which have heretofore been exercised by various individuals and bodies under a number of laws and ordinances. Peremptory power is given it to remove nuisances of every description and kind; to cause the cleansing and purification of alleys, streets, sewers, tenement-houses, and watercraft, and to take such other steps as may be necessary to insure the safety from disease of those persons residing in such vicinities.

In cases of impending pestilence, or in the event of the presence of a pestilence, it shall be the duty of said Board "to take such measures, to do and order, and cause to be done, such acts, and to make such expenditures (beyond those duly estimated for or provided) for the preservation of the public health, as it may in good faith declare the public safety and health to demand, and the Governor of the State shall also, in writing, approve. But the exercise of this extraordinary power shall also, so far as it involves such excessive expenditures, require the written assent of at least six members of the Board."

The Board is to keep a register of births and deaths; to inspect weights and measures; to coöperate with the

Quarantine Commissioners; to communicate important sanitary information to the health authorities of other parts of the State; to charge no fees; to enforce the laws relating to the sale of unwholesome food and deleterious drugs; to attend to vaccination, and other preventive sanitary measures; to report annually to the Governor of the State the sanitary condition of the district, together with the laws and regulations of the Board, and its expenditures; and on or before the 10th of May in each year, to publish a "Code of Health Ordinances," violations of which are to be punished by the courts by fine.

A very important and useful feature is the keeping open of a public complaint-book, in which citizens may notify the Commissioners of any nuisances which require to be abated. By this provision the Board will be enabled in a very direct manner to take prompt cognisance of many minor matters which might, perhaps, escape the vigilance of the subordinate officers. A sanitary engineer is to be employed, who shall survey and examine all premises and localities, and make such reports to the Board as it may order. Ample provisions are made for the employment of the necessary number of clerks and subordinates.

Since the passage of this act, on the 19th of February, the Sanitary Commissioners have been appointed by the Governor, and confirmed by the Senate. The gentlemen composing the Board have been well chosen, and, individually and collectively, are such as have the entire confidence of the profession and the community. They have already organized, have had several meetings, and have fairly initiated the great work which is before them.

Our profession is well represented in the Board by Drs. W. Parker, J. O. Stone, James Crane, of Brooklyn, the Sanitary Commissioners; Dr. John Swinburne, the Health Officer, Dr. E. Harris, the Registrar of Records, and Dr. E.B. Dalton, the Sanitary Superintendent. All of these gentlemen are acknowledged to be well qualified for their respective places. With the ample provisions of the bill, and the efficient aid which they will receive from the Police Department, and from the other members composing the Board, we have a right to expect such an enforcement of sanitary regulations as will tend to make New York a model city for cleanliness, and one of the healthiest upon the globe.

The Lecture of Prof. Clark on Cholera, which is the first of a course upon that disease which will appear in our columns, will, we doubt not, be read with great interest by the profession at large. The entire course has been phonographically reported; and each lecture will be, as this has been, revised by Dr. Clark before its publication. This insures an accuracy in the statements of the Professor which the great importance of the subject of which he treats demands.

FIFTY-NINTH ANNUAL MEETING OF THE NEW YORK STATE MEDICAL SOCIETY.

Tuesday, Feb. 6, 1866.

The New York State Medical Society held its fifty-ninth annual session in the City Hall, at Albany, N. Y. The meeting was promptly organized. The aggregate attendance amounted to nearly 200 representatives and invited guests.

The President, Dr. Henry W. Dean, of Rochester, delivered the inaugural address, for which he received the thanks of the Society.

The Chair announced the following Standing Committees:

On Business—Dr. White, of N. Y.; Dr. Vanderpoel, of Albany; Dr. Hall, of Auburn.

On Reception—Drs. March, Townsend, and Quakenbush.

On Credentials—Drs. Corliss, Saunders, and Bissell.

The Committee of Three, to whom was referred the consideration of the suggestions contained in the inaugural address, were by appointment as follows: Drs. James Kennedy, E. L. Beadle, and C. Green.

Several delegates from other State Societies, and such members of the Legislature as might belong to the medical profession, were invited to seats in the Convention.

Dr. Henry D Noyes, of New York, then read a very interesting illustrated paper upon "Cases in Ophthalmic Surgery." The following presentations were also made: "A Memoir of Dr. Wm. Bay of Albany," and the report of a case of "Progressive Locomotory Ataxia," by Dr. S. O. Vanderpoel. A paper on "Hospital Gangrene," by Dr. Walter Kempster of Syracuse. Another on "Inflammation of the Kidneys and Suppression of the Urine," by Dr. Charles Barrows of Clinton. A paper entitled "Tabulated Obstetrical Statistics," by P. O. Williams, was also presented by deputy; likewise a monograph upon "Gunshot Wound in Substance of the Liver." An essay on "Tetanus," by B. D. Carpenter of Staten Island, and on "Congenital Hypertrophy of the Tongue," by Alfred Bolton of Homer, constituted the remainder. The following additional Committees were appointed by the Chair:

On Nominations—Drs. Squibb, Parker, Seymour, Chamberlayne, Richardson, Cook, Lyman, and Langworthy.

On Resolutions—expressive of regard for the memory of Dr. Thomas W. Blatchford, of Troy, N. Y.—Drs. Brinsmade, Bissell, and Townsend.

The Society re-assembled after recess at 3 P.M.

After the reading of Dr. Kempster's paper, and the registration of some additional members, the subject of the New York Health Bill was introduced by Dr. James Kennedy in the following resolutions:

"*Resolved*, That the Medical Society of the State of New York, now in Convention, in view of the importance of the bill now before the Legislature, and which has passed the Senate, known as the 'New York Health Bill,' very respectfully asks the Assembly to concur with the Senate, in order that the said bill may become a law.

"*Resolved*, That a copy of the above resolution be sent to the Speaker of the Assembly."

Dr. B. P. Staats, in view of the fact that the bill had undergone considerable emendation at the hands of the Senate, favored the reference of the matter to a Committee, which, as subsequently constituted, consisted of the following gentlemen, who were instructed to report on the morrow:—Drs. Willard Parker, Stephen Smith, James Kennedy, C. R. Agnew, and J. T. Williams. A desultory debate on the bill then took place, but gave

way to the reading of Dr. Lawrence McKay's paper on "The Gingival Margin as a Diagnostic Sign." This was followed by Dr. Squibb's "Appeal for the Materia Medica."

The resolution accompanying the latter gentleman's effort, and another presenting both to the different State Medical Societies, with request that they take similar action, were, on motion of Dr. Lewis A. Sayre, adopted. The Treasurer's report was referred to the usual committee for examination.

The following papers, read by title by Dr. Thos C. Finnell, of New York, were referred by the Business Committee to the Committee of Publication: "Obituary of A. B. Conant, by E. R. Peaslee, M.D.;" "Eulogium on Prof. Chandler Robbins Gilman, M.D., by Wm. C. Roberts, M.D."

"An Inquiry relative to the Subject of the Formation and Expectoration of Bronchial Casts, accompanied by the History of an Illustrative Case, by Stephen Rogers, M.D."

"Embalming, as practised in Ancient and Modern Times, its Applicability to the Preservation of Anatomical Specimens, by James E. Steel, M.D."

Drs. Alden March, L. A. Sayre, and John Swinburne, strongly endorsed the paper on "Excision of the Shaft of the Humerus," read by Dr. William Gilfillan of Brooklyn.

Dr. Sayre next presented a "Case of Broken Neck."

Dr. A. B. Shipman, of Syracuse, pronounced a fitting eulogium upon the character of the late Dr. William Taylor of Manlius, and moved the appointment of a Committee of Three to draft suitable resolutions. Adopted; and Drs. Shipman, Chamberlayne, and Cook were appointed.

Dr. Ezra M. Hunt, of New Jersey, made some very appropriate remarks, returning thanks to the Society for the courtesy extended to the delegates from New Jersey.

Adjourned until Wednesday at 9½ A.M.

WEDNESDAY, Feb. 7, 1866.

The President, Dr. H. W. Dean, in the Chair. After the transaction of the usual business routine, and the disposition of certain memorials, Dr. Williams, the chairman of the Committee on Conference with the Legislature regarding the Health Bill, asked further time.

Drs. H. S. Crandall, of Swordsville, and J. C. Hutchison, of Brooklyn, were appointed to fill the vacancies occasioned by the resignations of Drs. Agnew and Parker.

Drs. Peaslee, Hutchison, and Husted were appointed a Committee to draft resolutions expressive of their feelings with regard to the late honorary member, Dr. Valentine Mott.

Dr. F. D. Lente, of Cold Spring, explained the use of a new instrument for inhaling sulphuric ether.

Dr. Edward H. Parker presented a paper upon "The Uses of Chloroform and Ether."

The same gentleman offered a resolution enjoining economy in the use of illustrations, and substituting woodcuts for lithographs whenever practicable in their annual issues. Dr. Vanderpoel's motion of reference to the Publishing Committee, after some discussion, finally prevailed.

The invitations of Surgeon-General James E. Pomfret and Governor Fenton were, on motion of Dr. Williams, accepted.

Dr Gurdon Buck, of New York, read a paper illustrative of cases, one of "Destruction of the Body of the Lower Jaw, with extensive disfigurement of the Face from a Shell Wound." The particulars of two other cases of deformity were also given.

Dr. E. R. Peaslee, of New York, followed with a paper upon "Retroflexion of the Unimpregnated Uterus."

The Business Committee recommended the succeeding papers to be read by title merely, and referred to the Committee on Publication:—

"On Adaptability of the Hospital and Cottage plan to the treatment and management of the Insane Poor, as illustrated by the Colony of Fitz-James, at Clermont, in France, by Charles A. Lee, M.D."

Also, "An Inquiry into the Mode of Propagation of Cholera, with Facts and Reasons in favor of the Theory of its Transmission by Choleraic Stools, and in no other manner, with Suggestions in regard to the proper preventive Measures to be used in case the Disease should again appear among us, by Charles A. Lee, M.D."

Also, a case of "Acute Enteritis, treated by B. G. McCabe, M.D., Monticello, Sullivan County."

Also, a "Memorial of the late Dr. Simeon Snow, of Montgomery County."

A paper on "Biliary Calculi" was read by Dr. Alden March.

The Treasurer's report, on examination by the proper committee, was found correct. Recess until 3 P.M.

AFTERNOON SESSION.

After the transaction of certain unimportant business, the Committee on the Inaugural Address of the President reported substantially as follows:—That the President designate some one from among the many personal friends of the late Dr. S. D. Willard to prepare his memorial in time for the next volume of the Transactions; that for the apathy manifested in the matter of county society organizations, the Committee can suggest no remedy but the sterling good sense of the parties concerned; that they endorse the proposed representation on the *pro rata* medical population basis; and that the State Society should constitute the Court of Appeals for all differences or questions of discipline originating in the County Societies.

On motion, the report was accepted and committee discharged.

Several delegates from sister State Societies expressed their gratification at the cordial manner of their reception.

Dr. Corliss gave a very interesting account of his visits to the Connecticut and Massachusetts State Medical Societies.

Dr. Sayre offered the following:

"*Resolved*, That the Secretary inform the delegates to the different State Societies of the time of their several meetings." Adopted.

Dr. Williams, from Committee on Health Bill, reported, by resolution, as follows:

"*Resolved*, That the State Medical Society, now in session, does hereby earnestly urge the Assembly to pass, at the earliest day, a Health bill which shall retain the grand sanitary provisions and regulations contained in the bill which recently passed the Senate; as to the mode or manner of appointing the Commissioners to execute said law, the Society offers no suggestions, leaving this wholly to the wisdom of the Legislature.

"*Resolved*, That a copy of the above resolution be sent to the Speaker of the Assembly at the earliest practicable moment." Adopted.

Dr. Edward Duffy, of Albany, presented a paper, entitled "Potassa Fusa as a Local Application to *Carbuncular* Inflammations, Whitlows, and in *Sympathetic Bubo*." Referred to Publication Committee.

Dr. Duffy also presented a paper "On the *Method of making Exhalation of different Odors visible*."

Dr. Crandall offered the following, which was adopted:

"*Resolved*, That in accordance with the suggestions of

the Committee on the Inaugural Address, the President is hereby authorized to appoint one or more members of this Society, residing in Albany, to prepare a suitable memorial of the late Secretary, Sylvester D. Willard, and that the same be published in the forthcoming Transactions."

Dr. J. H. Curry offered the following:

"*Whereas*, This Society wish to express further its appreciation of the life and character of S. D. Willard, M.D., late Secretary of this Society, and to show, in some measure, their sympathy with his numerous friends not connected with the profession; therefore,

"*Resolved*, That the members of this Society do request the biographer of the late Dr. Willard to issue five hundred extra copies of said biography, together with the steel plate of his likeness, and that the members of this Society will pay each the sum of $— to defray the expenses of the same."

The Chair appointed Drs. Townsend, Hun, and Bailey a committee to collect subscriptions for the above object.

Dr. L. A. Sayre, in behalf of the Committee on application to the Legislature regarding laws for Medical Societies, reported the draft of a bill. Dr. Govan's motion that the Legislature be requested to make the same a law, was adopted.

Drs. March and Quackenbush were appointed a committee of arrangements to procure more convenient accommodations for holding future meetings of the Society.

The following papers, read by title, were referred to Committee on Publication:—

"Continuation of the Essay on Compound Human Monsters," by Dr. Fisher.

"Sanitary Condition of Fish-Alley and Surroundings," by Dr. Wm. F. Thoms.

Dr. John P. Gray read a paper on "Incomplete Progressive Paralysis."

Dr. George T. Stevens read a paper on "Excisions in Cases of Gunshot Wounds."

Dr. Henry S. Downs described a case of hydrocephalus.

The Committee on resolutions in memory of the late Dr. Blatchford, of Troy, reported through Dr. Brinsmade, with the request that Dr. Stephen Wicks, of Orange, N. J., prepare the obituary for the next volume of the Transactions. Adopted.

Adjourned to hear the Annual Presidential Address, at 8 o'clock, in the Assembly Chamber.

EVENING SESSION.

Dr. Hutchison, Vice-President, in chair.

The Annual Address by Dr. H. W. Dean was delivered, followed by the tender of a vote of thanks to the orator. Adjourned to 9 o'clock, A.M.

THURSDAY, Feb. 8, 1866.

The Society re-convened at half-past 9 A.M.

After the usual routine business, Dr. Hutchison moved that the committee appointed to draft suitable resolutions expressing the sense of the Society relative to the death of Dr. Mott, be authorized to prepare such resolutions as they may think proper, and send them to the Committee on Publication, to be published in the Transactions of the Society. Adopted.

Resolutions to the memory of Dr. Wm. Taylor, of Manlius, Onondaga county, presented by Dr. Shipman, of the Special Committee, were adopted.

Dr. Bissell offered a series of resolutions, of which the following were the most important:—

"*Resolved*, That this Society concur in the views taken and the recommendations made by the 'Council of Hygiene and Public Health' of the citizens of New York, to protect the people of that city against the introduction and spreading of Asiatic cholera; the causes which will produce epidemic cholera, and the hygienic measures which will prevent its deadly march in that city, will produce like effects in every other part of the State.

"*Resolved*, That the Council of Hygiene and Public Health of said city are entitled to the thanks of the medical profession and people of the State, for their full and able report on Epidemic Cholera, adopted Nov. 14th, 1865, and that a copy of the same should at once be placed in the hands of all Common Councils, town authorities, and Boards of Health, within the State limits, for their direction and guidance in the case of preventive measures, before the cholera shall visit their localities." Adopted.

Dr. A. N. Bell moved that the same acknowledgments be tendered to Drs. L. A. Sayre, William Murphy, and J. Swinburne, and to the Mayor of New York, for their efforts to exclude and prevent cholera, as published in a pamphlet for public distribution, under date of November, 1865, and that this pamphlet be distributed in the same manner as that of the report of the Citizens' Association. Adopted.

Dr. Wheeler, of Massachusetts, made some very interesting remarks expressive of his appreciation of the Society. He also illustrated a case of "Urinary Calculi."

Dr. E. H. Parker reported with regret that there were no competitions for the "Merritt Cash Prize Essay" on the "Pathology and Treatment of Chronic Diarrhœa, contracted in Camps and Malarious Regions;" also that for the Brinsmade Prize, for the best essay on "Medical and Vital Statistics," but one paper had been presented, and inasmuch as this did not comply with the rules specially laid down by the founder of the prize, nor fill the scope of requirements exacted by him, the Committee did not feel themselves authorized to receive the essay, and could, consequently, express no opinion upon its merits.

The Committee closed their report with a tribute to the memory of their lamented colleague, the late Dr. Thomas W. Blatchford.

Dr. Vanderpoel moved that the same Committee be continued, and that the subject of essays be referred back to that Committee, for action according to their judgment. Carried.

Dr. Squibb, from the Committee on Nominations, recommended the following:

For President—Joseph C. Hutchison, M.D., of Brooklyn.

For Vice-President—Julien T. Williams, M.D., of Dunkirk, Chatauque Co.

For Secretary—William H. Bailey, M.D., of Albany.

For Treasurer—J. V. P. Quackenbush, M.D., of Albany.

FOR CENSORS.

Southern District—Oliver White, of New York; Dewitt C. Enos, of Brooklyn; Samuel A. Purdy, of New York.

Eastern District—B. P. Staats, of Albany; T. C. Brinsmade, of Troy; P. McNaughton, of Albany.

Middle District—M. M. Bagg, of Oneida Co.; C. B. Coventry, of Oneida Co.; A. F. Doolittle, of Herkimer Co.

Western District—Alexander Thompson, of Cayuga Co.; C. M. Crandall, of Allegany Co.; Edward Hall, of Cayuga Co.

The usual Committees were likewise provided for, and the report, as a whole, unanimously adopted.

Dr. Squibb offered the following, which was adopted:

"*Whereas*, There is reason to suppose that some persons are admitted to the courtesies of this Society, and to a place upon the register, who may not be properly entitled to such a position; therefore,

"*Resolved*, That the Committee on Credentials and Reception be instructed by the Society to be careful in their scrutiny of all the names who may be admitted or invited to the floor of the Society, and to so control the register that no improper names obtain access to it; also, that this Society do not act on this subject independent of the Committee's action."

Dr. Beadle moved that the Committee on Credentials have power to erase the name of any person registered as a delegate from any society or institution not entitled to representation in this Society. Adopted.

Dr. G. J. Fisher, delegate to the Medical Society of the State of New Jersey, presented a report, which was accepted.

Dr. White moved that the thanks of the Society be tendered to our out-going President, Dr. Dean, for the efficient, courteous, and dignified manner in which he has discharged his duties, notwithstanding the embarrassing circumstances attending his appointment. Adopted.

Dr. Edward Duffey, of Albany, at the request of the President, then addressed the Society, giving his experience of cholera in St. Louis in 1848–49–50 (while practising in that city), and in regard to the analysis of and experiments on Asiatic cholera dejections, both in man and the lower order of animals, and the disinfection of same by the limited use of chlorics and the total destruction or burning up of the dejections by the sulphates; and the incontestable and conclusive proofs of priority of discovery at home and abroad in those experimental facts which have been so highly lauded and spoken of in medical and literary journals, and justly acknowledged in the present era, both in Mexico, Cuba, Spain, France, Russia, and England, by written essays, entitled "Vincit Veritas; or, Truth Conquers," "Pestilence among Men and Animals," and "Practical Original Sanitary Facts," written for the use of the United States Army and Navy, and transmitted by Gen. John A. Dix to the United States Sanitary Commission.

In conclusion, he said that it was the glory of God to conceal a thing, and the glory of man to find it out; and however it suited some minds, at home or abroad, to drink from the "big lake," he, for his part, desired to claim his own original views, and drink out of his own "little rivulet of science;" and, standing on its banks, could reflect on the strange, eventful "destiny" of the past, with hopefulness for the realization of a happier and brighter future.

Dr. Bissell moved that Dr. Brinsmade present to the Publication Committee his remarks concerning the late Dr. Thos. W. Blatchford. Adopted.

Dr. W. C. Anderson moved that a Committee of Hygiene be appointed, composed of five members from this Society, to confer with the authorized officials, and report to this Society. Adopted; and Drs. Bell, Harris, Ordronaux, and McMillan were appointed.

The following papers were read by title, and referred to the Publication Committee:

"Spontaneous Amputation in Utero," by Dr. Armsby.

Also, "Strangulated Congenital Hernia."

"Report of Commissioners of Quarantine," by Dr. Swinburne.

"The Willard Asylum for the Chronic Insane" (bill as passed by the Legislature), by Dr. Cook.

"Cases of Epidemic Cerebro-Spinal Meningitis, or Spotted Fever, with post-mortem appearances," by Dr. J. R. Boulware.

Also, "Cases of Carbonaceous Lung."

Dr. Quackenbush, Treasurer, presented a bill from Chas. Van Benthuysen for printing, which was referred to a committee consisting of Drs. Quackenbush, Huu, and Townsend.

The Society then adjourned *sine die*.

Reviews.

CIRCULAR. No. 6. War Department, Surgeon-General's Office, Washington, November 1, 1865. REPORTS ON THE EXTENT AND NATURE OF THE MATERIALS AVAILABLE FOR THE PREPARATION OF A MEDICAL AND SURGICAL HISTORY OF THE REBELLION. Printed for the Surgeon-General's Office by J. B. Lippincott & Co. Philadelphia, 1865.

THIS circular comprises the report of George A. Otis, Brevet Lieut.-Col. and Surgeon U. S. Vols., who has charge of the surgical records of the Surgeon-General's office; and the report of J. J. Woodward, Assist. Surgeon and Brevet Major U. S. Army, to the Surgeon-General, on the extent and nature of the materials which are available for the completion of the medical and surgical history of the great rebellion. No one will be surprised to hear from Dr. Otis that this material is "simply enormous," and that the "returns are of as huge proportions as the armies that have been engaged in active operations for the past four years." "It is as yet," he says, "impracticable to determine with accuracy the number of wounds received in action during the late war, though data for a near approximative estimate are accessible. But a comparison of a portion of the returns with the complete statistics of other armies, will sufficiently indicate the vast numbers that are dealt with. In the British army in the Crimea, during the entire war, there were 12,094 wounded and 2,755 killed, or a total of 14,849. In the French army in the Crimea, of a total effective force of 309,268, according to the report recently made by M. Chenu, there were 39,868 wounded and 8,250 killed, or a total of 48,118, although in his report of injuries of different regions, M. Chenu records but 26,681 cases. In the late war, the monthly reports from a little more than half the regiments in the field, give for the year ending June 30, 1862, an aggregate of 17,496 gunshot wounds. The reports from rather more than three-fourths of the regiments for the year ending June 30, 1863, give a total of 55,974 gunshot wounds. The battle-field lists of wounded for the years 1864–65, include over 114,000 names. But these returns are to be completed by collating with them the reports of general hospitals, where many wounded were received whose names the recorders of field hospitals or regimental medical officers failed to obtain, and by adding the names of those killed in battle. In comparing the number of cases of some important injury, as, for example, gunshot fracture of the femur, it is found that in the French Crimean army there were 459 such injuries, and in the English army 194, while over 5000 such cases have been reported to this office; or if one of the major operations is selected for comparison, as excision of the head of the humerus, the Crimean returns give 16 of these excisions in the British and 38 in the French army; but the registers of this office contain the detailed histories of 575 such operations."

The surgical specimens of the Army Medical Museum number the enormous figure of 5480. After giving a statement of the successive steps taken to classify properly the surgical records of the office, the consideration of *Special Wounds* and *Injuries* is taken up. The injuries of different parts of the body are treated of, and an outline of the results of treatment

and rates of mortality given, as far as can be done by mere figures and the briefest possible reference to typical and unique cases. We learn that the operation of trephining was performed on 107 cases of injury of the head; 47 of which recovered. In 114 cases in which fragments of bone or ball were removed without the use of the trephine, 61 were fatal and 47 recovered. In 483 which were treated without operation, the ratio was 20·5 per cent. Of 187 cases of gunshot fracture of vertebra, only seven recovered. 73 per cent. of penetrating wounds of chest were fatal, and 26 per cent. of the penetrating wounds of peritoneal cavity recovered. Excision of the hip-joint was the only operation followed by recovery in injuries involving the head of the femur. Of 387 cases of fracture of the upper third of the thigh, 93 were doing well at the end of a year. There were 363 reported cases of tetanus, with 27 recoveries; in two, recovery took place under the use of opiates and stimulants, and in two after amputation. 1037 cases of secondary hæmorrhage have been recorded; of these, 387 were cases of secondary bleeding from a stump, of which 60 per cent. ended fatally, and 650 were cases of secondary hæmorrhage from gunshot wounds, of which 51 per cent. were fatal. The femoral:—In reviewing the recorded cases of secondary hæmorrhage from gunshot wounds, the reporter remarks that, in the earlier part of the war, surgeons were too much in the habit of tying the main trunk at a distance from the wound, but that later, it became the universal practice to endeavor to secure both ends of the bleeding vessel. 754 cases of pyæmia are recorded, and of these 719 were fatal. There are 13,397 amputations recorded for gunshot injury, and in 9705 of these the final results have been ascertained. The rate of mortality is shown regularly to increase as the trunk is approached. Hip-joint amputation has been performed twenty-three times; 9 being primary operations. Of these, 2 of primary and 2 of secondary recovered. The ligature of the larger arteries has been performed 403 times from the beginning of the war to March, 1864. The ratio of mortality for each was as follows:—Common carotid, 75·71; external carotid, 100; subclavian, 80; axillary, 87·50; brachial, 17·18; radial, 14·28; ulnar, 18·18; common iliac, 100; internal iliac, 100; external iliac, 87·50; femoral, 76·85; profunda, 85·71; popliteal, 75; anterior tibial, 31·25; post tibial, 31·57; peroneal, 100; all others, 26·66. The remaining portion of Surgeon Otis's report refers to matters connected with the medical staff of the army and the materia chirurgica. Before concluding a notice of this portion of the work, we would refer to the fact that only seven deaths from chloroform have occurred, and that ether was used in 30 per cent. of all the cases requiring anæsthesia.

Dr. Woodward brings to his portion of the work a remarkable amount of statistical talent and pathological knowledge. The various opinions as well as observations of those who have furnished the original data have been duly weighed. A spirit of justice to all concerned is manifest upon every page. The difficulties that have clustered about his task are stated with fairness, indeed with almost mathematical detail; and we are irresistibly led to adopt the author's own conviction, that with the patient care bestowed upon their compilation, as well as the immense size of the figures considered, the medical statistics of our army cannot well be without practical value.

The space to which we have been compelled to restrict ourselves will not allow us to enter as fully as we should desire upon the consideration of his contribution; we can therefore only pass in review some of the more salient points. Climatic influences in the cause and treatment of disease come in for their share of attention; and for the purpose of comparison, the United States have been divided into three great regions: the Atlantic, the Central, and the Pacific. Thus the Government, as far as the exigencies of the service permitted, at a comparatively early period in the war, adopted, upon the recommendation of its Medical Department, the policy of transferring the sick and wounded to hospitals in more northern latitudes, with the most gratifying results.

The section devoted to mortality rates is a well digested array of facts and figures. We are informed that our losses from disease, during the first half of our struggle, were proportionately less than those of the allied armies in the Crimea, or of our own army in the Mexican war. The mortality was greatest in the Central, and least in the Pacific region. In the former, the extent of territory, with operations remote from the base of supplies, along with exposure to miasmatic influences, and in the latter conditions of life almost identical with those in times of peace, are allowed their share of modifying influence.

In the general prevalence of disease, the Central region still maintains the preëminence in the ratio per 1000 of mean strength. In the constant sickness rate, the Atlantic region slightly exceeds the Central; the rate in both, however, is about 10 per cent. of the strength, while, in the words of the author, "the rate for the Pacific region, 7 per cent., is in striking contrast with the slight mortality of that region."

Omitting the section devoted to the consideration of the comparative frequency of the several diseases, we come upon some interesting facts relative to camp-fever, or, according to Dr. Woodward's nomenclature, adopted by the Medical Bureau, typho-malarial fever. The Pacific region appears to have been comparatively exempt from this scourge, while the Central suffered the most in mortality and frequency of invasion. A diagram constructed to show what our author calls "the season wave," expresses the autumnal character of all those fevers, which, for practical purposes, have been grouped together under this new designation.

We agree with our compiler that many of the reported cases of typhus were instances of mistaken diagnosis, and endorse the wisdom of their comprehension under the head of "typho-malarial fever." Still, the occasional occurrence of this disease is not denied in connexion with "crowd-poisoning" influences.

A brief allusion to the possession of some materials relating to spotted fever, made up of autopsical reports, etc., and a notice of the yellow-fever outbreak at Key West, Florida, in July, 1862, and the epidemic at Newbern, N. C., in 1864, conclude this portion of the circular. The publication *in extenso* of several papers upon the latter subject, in possession of the Department, are promised in the Medical History of the War, which we are elsewhere informed will attain the dignity of three quarto volumes.

262,807 cases of intermittent fever are reported as having occurred in two years. These include all types—even the congestive, or pernicious fever of Dr. Wood—which last form helps to swell the mortality rate from one death in every 631 cases to one in every 147. The frequency of attack and mortality was greater in the second than in the first year, and in the Central than in the Atlantic region.

A few remarks upon jaundice bring us to what many an army-surgeon has viewed as the opprobrium of his science—diarrhœa and dysentery. They are discussed in conjunction, and no one condition is credited with their causation. A scorbutic taint, malarial influences, crowd-poisoning, the heat of summer, fatigue, and the

use of water with saline or organic impurities, constitute the chief, but not the only explanation of their origin. After camp fever, this class of diseases has most fearfully decimated our forces; and here again the Central region, viewed in its territorial integrity, has the largest number of representatives upon the mortality lists. The lesion is determined as a chronic ulcerative colitis, occasionally an entero-colitis; and to the former condition there is occasionally superadded a yellowish false membrane of more or less depth of tint, "composed of innumerable round cells, held together by an adhesive granular matrix, more or less resembling coagulated fibrin." Tubular casts of this pseudo-plastic substance have been found in the stools of patients who subsequently recovered. Diphtheria, pneumonia, congestion of the lungs, serous apoplexy, and Bright's disease of the kidneys, are among the leading complications. In the stools the microscope has developed mucus, blood, undigested particles of food, and torula cells. Experience seems to have settled the point that all recommended therapeutical agents are but subservient to proper dietetic and climatic influences.

We have now come to consider the diseases of the respiratory organs. The statistics show the greatest mortality from pneumonia, aggravated of course by the usual season influences. Our figures, though large, and perhaps in every instance not absolutely correct, still fail to attain the standard in fatality reached by the British in the Crimea.

The amount of scurvy reported was comparatively small, and the mortality unprecedented. The generous alimentation proved an excellent prophylactic; still the scorbutic taint was not altogether absent, and may have been reported under the head of rheumatism, neuralgia, lumbago, and even malingering.

The statistics of "discharges on surgeon's certificate of disability" are not yet complete, and subsequently modified as they were by more stringent orders or fuller instructions in the premises, we for the present refrain from quoting.

Closing with a compunctious throb the doors of the Army Medical Museum, with its rich pathological stores illustrated by many collateral aids; even denying ourselves the time to admire the beautiful chromo-lithographic representation of the "ileum in malarial form of typho-malarial fever," and the engraved copy of a micro-photograph, given as an earnest of what may be expected in the further development of the art, we pass on to the exceedingly interesting chapter on hospital organization and construction.

"Never before," remarks Dr. W., "were such establishments, in time of war, so little crowded or so liberally supplied." * * * * "Never before, in the history of the world, has the mortality in military hospitals been so small; and never have such establishments so completely escaped from diseases generated within its walls." To all of which we yield our cordial though unneeded assent. To say that the typography of the work is superb and the plates magnificent, would be giving but a faint idea of its real excellence in this respect.

RHINOSCOPY AND LARYNGOSCOPY; THEIR VALUE IN PRACTICAL MEDICINE, by DR. FRIEDRICH SEMELEDER, Physician in Ordinary to his Majesty the Emperor of Mexico; Member of the Royal Medical Society of Vienna, and of the Medical Society of the Pantheon in Paris; formerly member of the Medical Faculty of the University of Vienna, and Surgeon to the Branch Hospital at Gumpendorf. Translated from the German, by EDWARD T. CASWELL, M.D. With woodcuts and two chromo-lithographic plates; pp. 191. New York: William Wood & Co., 61 Walker Street, 1866.

THE work before us is the production of the gentleman to whom, probably, if we except Professor Czermak, the profession owes the most as the utilizer of the arts of rhinoscopy and laryngoscopy. The description of the practice of rhinoscopy occupies, comparatively, a large space in Dr. Semeleder's volumes. This is as it should be, for in this country the sum of our knowledge on this subject may be said to be nothing. The anatomy of the naso-pharyngeal space is fully given, and is accompanied by an illustrative plate, a sectional view, which will repay study and verification. The faucial orifice of the Eustachian tube, the sinus or fossa of Rosenmüller, even in the midst of the ample material of our dissecting-rooms, are not so familiar to medical men as parts much less accessible.

Dr. Semeleder's apparatus for examination consists of the right-angled jointed tongue-spatula, a mirror of steel or glass coated with quicksilver from 1 to 2 centimètres in diameter. Mirrors are preferred on which the angle of attachment to the rod approaches nearly to a right angle. Palate-hooks are also used; but no very clear account of them is given. More light is said to be needed for the examination of the posterior nares than for the larynx. The author throws a cone of light into the room by means of a concave mirror attached to the window upon which the sun shines; he then seats himself and the patient within this cone, and collects anew the diverging rays by means of the illuminating apparatus. Dr. Semeleder is not yet an advocate of the more elaborate methods of illumination; when artificial light is to be used, the light of any good lamp suffices.

Semeleder's illuminating-spectacles, consisting essentially of a spectacle frame, to the bridge of which a concave mirror is attached, have proved to be a practical and popular means of illumination.

"The practice and adroitness of the observer," are said to be "more important than on the examination of the larynx." Various methods are suggested for the anterior examination of the nares,—pressure at the tip of the nose, the use of valvular ear specula, and Voltolini's method of sliding an ear catheter or a bright straight tube (such as the endoscope) into the nasal cavity.

Cases in aural surgery as well as of polypi, ulcers in the region of the posterior nares, some of them very striking, and which owe their interest to the revelations of the rhinoscope, with a few remarks on the instrument for the local application of remedies to the naso-pharyngeal space, close this very satisfactory portion of the volume. The part devoted to laryngoscopy contains a description of the methods of practising the art, the physiology of the larynx, and the diseases of its various tissues. The translator's appendix, which is familiar to many of our readers, having been presented to them in the *American Medical Times*, consists of the description of the extirpation of polypi in the larynx by Dr. Semeleder—a very difficult operation, although the distinguished gentleman's boasting over "German cold-bloodedness" sounds a little queerly to American professional ears.

The translation, as we should expect from the accomplished scholar who did it, is well done. If we had any suggestions as to the rendering into English to make, perhaps we might say that it is hardly fair to translate the verb *orientiren*, by *orient*, page 51; "one needed ample time to orient himself." Our verb orient, however well understood by civil engineers, is hardly classical English. Then, again, why does Dr. Caswell say

"*Polyp*" for *Polypus?* An index would enhance the value of the book, although the table of contents is full. We believe that Dr. Caswell, in thus giving to the American profession this work of his friend and distinguished instructor, has done us an important service. He has put into our hands a volume much better than any compilation on the same subject, containing as it does the unadulterated views and experience of one of the earliest and most successful cultivators of rhinoscopy and laryngoscopy.

Improvements in Instruments.

BUTTLES' INHALER, AND ITS MODIFICATIONS.

THE application of vapors directly to the mucous membrane of the nasal and air-passages is becoming quite a fashionable mode of treatment. The great favor with which the inhalation of the vapor of iodine is now being received, is perhaps an explanation of this.

Various forms of instruments have been invented for the purpose of utilizing this system of medication.

The first apparatus of the kind was devised by Dr. M. S. Buttles, of this city, some months ago, and is represented by Fig. 1. It consists of a hollow, pyri-

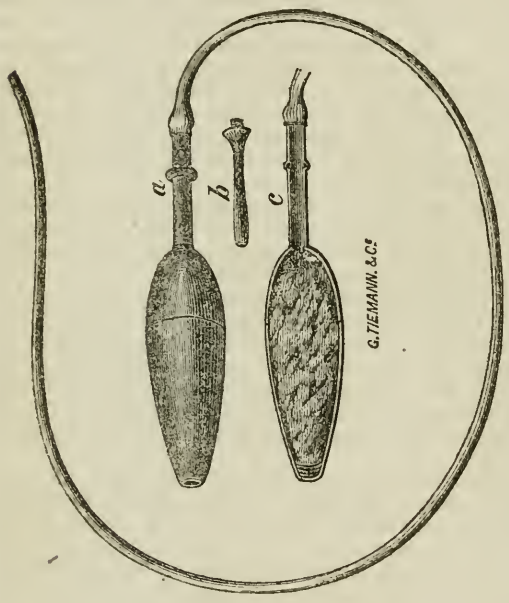


FIG. 1.

form-shaped bulb of hard rubber, to one extremity of which a nozzle (*b*) can be screwed; while to the other a tube (*a*) is also attached, which forms the medium for the application of the rubber-tube. The bulb is divided into two parts, for the purpose of introducing and removing a sponge, which contains the various remedies, the vapors of which it may be desirable to inhale. For ordinary use, the tapering end of the bulb is either inserted into the nostril, or the end or even the whole of the bulb may be introduced into the mouth. The same principle applies in either case, viz.—the application of vapor by means of inhalation, directly to the mucous surfaces of the nostrils and fauces. The pipe (*b*) is only designed to be used in cases occurring in children, when it may be necessary to blow through the elastic tube.

An increased range of application for Buttles' instrument has been made by Dr. D. B. St. John Roosa, who combines with it an India-rubber air-syringe, as in the manner represented in Fig. 2. The air-bag is the same as is used in Politzer's method of rendering pervious the Eustachian tube. Instead of the tube (*b*) in Buttles' apparatus, Dr. Roosa has adapted a flattened spoon-shaped rubber-bulb with perforations, which is very convenient for introduction into the nostril. The combination of Politzer's air-bag with the original inhaler, was made for the purpose of treating more particularly diseases of the middle ear, and for injecting medicated vapors into the cavity of the tympanum; but we see no reason why it could not have a more extended application, and be used in the treatment of all those catarrhal affections in which it might be necessary to bring medicated vapors in more perfect contact with those parts which might be beyond the reach of cur-

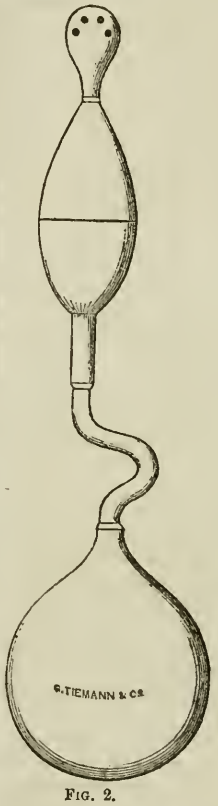


FIG. 2.

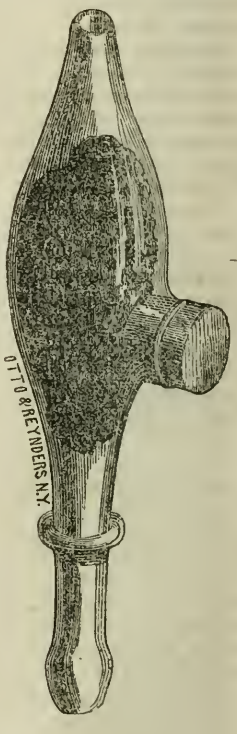


FIG. 3.

rents induced by ordinary inspiration. Why could it not be used by the application of a proper nozzle for throwing vapors into the vagina, cavity of the uterus, into the rectum, and even into the urethra and bladder?

Dr. O. D. Pomeroy, also of this city, after using quite extensively Dr. Buttles' inhaler, found that it was acted upon when certain materials were used, and more especially was this the case in reference to chloroform. This led him to have the bulb constructed of glass. It has, as will be seen by a reference to the wood-cut, Fig. 3, a somewhat different shape from Dr. Buttles'; and instead of being divided into two portions, has a neck through which the sponge may be introduced or withdrawn by means of a forceps. A cork closes the opening of this neck. The nozzle of the instrument is bulbous at its extremity, for the adaptation of elastic tubing, when it is found necessary to

connect it with any other instrument, such for instance as a catheter. The other extremity of the instrument is tapering for introduction into the nostrils. The advantages of Dr. Pomeroy's modification over the original instrument are: the ease with which it may be cleansed; the impossibility of its being acted upon by corrosive substances and solvents: and last, but not least, its cheapness. The glass is made thick enough to prevent its being easily broken. The first instrument has the advantage over this one, in allowing of its complete introduction into the cavity of the mouth—an impossibility with Dr. Pomeroy's apparatus, on account of the position of the neck at right angles with the body.

Correspondence.

DOMESTIC.

Chicago, Feb. 1866.

To the Editor of the Medical Record.

Sir:—The atmosphere of our medical circle in this city was agreeably stirred the other day by the appearance of the first number of "The Medical Record." For several weeks past we have been welcoming the journals to which the return of peace has given life throughout the country; and now, to cap the climax, *primus inter pares*, this new semi-monthly appears. Combining the elaborate strength of a monthly publication with the lighter graces of a weekly, it cannot fail to meet with universal favor.

An interesting subject is this of medical journalism. The ambition of the schools finds its expression in the local weeklies or monthlies which originate from so many separate centres throughout the country. These serve to keep alive the affection of the alumni for their Alma Mater, to afford the means of communication between the professors and their former pupils, and to gather up the experience of the hundreds of physicians whose horizon is necessarily limited by the circle of their practice, and by the reminiscences of their undergraduate studies at the medical college. Most useful and worthy of approbation are the periodicals of this class. Then come the solid metropolitan monthlies, which address themselves to a wider range of readers, reflecting the practice and the precepts of the chiefs of medicine, and picturing forth the hospitals, lecture-rooms, and society-halls of the most favored centres of learning. To this class also must be referred the more ponderous quarterlies, which furnish light reading for medical philosophers, and utter oracular sentences for the busy practitioner who has neither leisure nor the purse for separate monographic volumes. Invaluable to such men is a work like *Braithwaite's Retrospect*, which affords a glimpse of the great world of medical learning across the ocean. All these publications have their sphere, serve their purpose, and find their level. So, after wading through the "weightier matter of the law," and brushing aside the lighter themes of the local press, it is with unfeigned satisfaction that we hail the appearance of a Medical Record, which by its frequent issue shall sustain, without flagging, the interest of the reader, while its well digested matter shall provoke the attention of the student, and rescue his mind from the danger of frivolous reading.

Our city affords little that is new in matters pertaining to medicine. The close of the war has favored us with the presence of a host of returned army surgeons, who seek to replace the excitement of battle by the stern joys of a conflict with fortune in the ranks of a crowded profession. Some will drift into other callings; some will grow weary and faint by the way; success will meet only those who watch and wait—*and work*.

The annual commencement of the Rush Medical College occurred on the 24th of January. Ninety young men were admitted to the degree of M.D. The learned Professor of Physiology, Dr. Freer, presided in the absence of the President of the Faculty, Prof. Brainerd, who has recently left Chicago for an excursion to Europe. During his absence the chair of Surgery is filled by Dr. Powell, an accomplished young surgeon, who for several years has held the position of Demonstrator of Anatomy to the College. Dr. Lackey, one of the editors of the Chicago *Medical Journal*, succeeds to the place thus made vacant by the promotion of Dr. P.

The Chicago Medical College is still in session, as its winter term is five weeks longer than the term at the old school. The ex-President of the American Medical Association manifests all his youthful assiduity, and still finds time to lecture daily at the college or in the wards of the Mercy Hospital, to act as sole editor of the *Medical Examiner*, and to meet all the requirements of perhaps the busiest practice in the city.

A new impetus has been recently given to the study of medicine in this city by the opening of the Cook County Hospital. The building is situated in the southern quarter of the town, and during the war was used by the U. S. authorities as a hospital for the treatment of diseases of the eye. The end of the war vacated its wards, and restored it to the direction of the Supervisors of the county, who proceeded to refit the building, and to open it for the reception of the pauper sick, whose necessities for the last four years have been quite overlooked. The treatment of the patients is placed in the hands of a medical board of physicians and surgeons, and there is a resident house-staff, consisting, at present, of a house-physician and surgeon, with an assistant, who are appointed after examination by a committee of the Medical Board, precisely in accordance with the practice which obtains in New York at Bellevue and the Island hospitals. Our hospital has a capacity of two hundred and fifty beds, and is, in the plan of its construction and in all its appointments, quite equal to similar charitable institutions in the older cities of the country. Clinical instruction has been already inaugurated by the visiting physicians and surgeons, who have thrown open the wards for a public clinic every Tuesday and Friday at half-past one o'clock P.M. These opportunities seem to be highly appreciated, not only by the students from the college, but by many of the physicians resident in town. As the surgical theatre and the pathological room already afford chances for observation superior to anything ever before enjoyed in this city, it is reasonable to anticipate that the time is not distant when the clinical advantages of our hospital will supplement the attractions of our colleges in a ratio fairly comparable to that which exists between the schools and the hospitals of New York and Philadelphia.

The Chicago *Medical Journal* has just commenced its twenty-third year under a new editorial corps, consisting of Dr. E. L. Holmes, H. M. Lyman, and R. M. Lackey.

Dr. Holmes is already well known as one of the most distinguished oculists in the United States. The names of his associates are new to the profession, but the improved appearance of the Journal leads us to hope that it may prosper under their care. The Journal is one of the oldest medical publications in the West, and the pages of its file illustrate well the progress of the country. The names of the gentlemen who have in past years been connected with its editorial management are household words throughout the

North-western States, and their recital carries one directly back to those days—so comparatively recent in time, yet so distant in contrast with the present—when Chicago was but a straggling village on the swampy shore of Lake Michigan.

PHILADELPHIA, Feb. 1866.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Never, since the winter before the commencement of the war, has our lecture season been so successful. The classes at both our schools are large, and the prospect of proportionally large graduating classes is excellent. In a casual dropping in at lectures, I have been surprised and delighted at the attention and respect shown the lecturers. In this respect a most marked improvement has occurred. Long may it continue. I am unable to chronicle anything specially new at either school in regard to themes, etc., and believe the season will close as quietly as it has progressed.

While we have ample room, material, and opportunity for another school, yet there appears at present no indication by which to anticipate any movement in that direction. Nor has there been any effort to increase the usefulness of the existing institutions by the addition of those adjunct professors, who, by proper employment, may add vastly to the field from which to glean a proper knowledge of our noble art.

There was indeed some talk of a summer-school, but that appears to have been abandoned; and your city, by the energy and industry of her teachers, bids fair to draw off not only our surplus, but even to trench fearfully upon the main body of our usual classes.

In regard to societies we are better supplied, and the meetings are generally fully attended, and able discussions are had almost weekly.

The subject of puerperal fever has occupied two meetings of the Philadelphia County Society, and elicited warm discussions on both occasions. The nature of this malady, and the question as to its contagiousness, were the main points; and both sides ably sustained their parts.

Cholera was a subject which attracted enormous meetings, and full discussions ensued, resulting in the appointment of a committee, whose able report was published in the secular journals, and which, I am fully satisfied, awoke the people to the necessity for cleanliness, care in diet, and at the same time allayed the groundless apprehensions of many, who feared they knew not what.

Prof. Leidy gave a very able and interesting lecture on Human Entozoa, which, I regret to say, was not reported for publication. He rendered his lecture still more valuable by numerous drawings, specimens, etc.

From these, and many other evidences, it would appear that the County Society is by far the most popular and energetic of the medical organizations.

The College of Physicians, dignified and slow, holds monthly meetings, at which are presented cases, specimens, books, etc.; but no regular debates are held, and hence its meetings are attended, as a general rule, by a select few. The subject of cholera in all its bearings is in the hands of a committee, who are expected to report some special action; and if our usually unimpressible Board of Health and Councils can be affected, it is thought this body has weight enough to do it. We shall see!

The Pathological Society, smallest in numbers, meets about once a month. Specimens are presented with all their details, and a very full summary appears quarterly in the American Journal.

Perhaps the most lively, best attended for its size, and most sociable of our organizations, is the Northern Medical Association. This body organized about 1847, long before the County Society; has held semi-monthly meetings ever since. The attendance is full, and the members, being all well acquainted with each other, enjoy the fullest freedom in debate, and certainly manage to obtain the fullest knowledge of every subject they discuss.

Our clubs, for which Philadelphia has ever been famous, appear to be decreasing rapidly, both in number and usefulness. Virtually, the only one at present in operation is the "Tuesday Evening Club," which, I opine, is not as well attended as formerly. Perhaps nothing has kept us more like brothers than these little re-unions, where gossip, medicine, and good eating occupy the evening, and from which the stranger retires with a feeling that it "was good to be there."

The Pennsylvania Hospital in the heart of the city, and the Philadelphia Hospital across the Schuylkill, have both attracted full classes twice a week. The latter abounds in material, and would make a most valuable groundwork upon which to build a medical school similar to your Bellevue.

The health of our city is certainly good; scarcely any disease appears to exist, and our bills of mortality exhibit a gratifying index for those who delight to study them. The action already taken on the subject of cholera has driven from our doors many pest-places, which would have acted in the spring as salient points for disease and death.

Yours,

N. E. M.

New Publications.

ANNOUNCEMENTS OF NEW BOOKS.

WILLIAM WOOD & Co. New York:
Beale on the Tissues.
Seguin on Idiocy.

LINDSAY & BLAKISTON, Philadelphia:
Waring's Therapeutics.
Trousseau's Clinical Medicine.
Tanner's Index of Diseases and Treatment.
Remarks on Neurosis.

JOHN CHURCHILL & SONS, London, England:
Beale on Nerves and on Inflammation.
Savage on Female Pelvic Organs. 4to. 2d edition.
Wells on Ovaries. Vol. 2.

BOOKS AND PAMPHLETS RECEIVED.

PRACTICE OF MEDICINE, by AUSTIN FLINT, M.D., Professor of Principles and Practice of Medicine, Bellevue Medical College, &c. Philadelphia: H. C. Lea. 8vo. pp. 858.

THE PHYSIOLOGY OF MAN. Introduction—The Blood; Circulation; Respiration, by AUSTIN FLINT, Junior, M.D., Professor of Physiology and Microscopy, Bellevue Medical College. New York: D. Appleton & Co., 1866. 8vo. pp. 495.

A PRACTICAL TREATISE ON URINARY AND RENAL DISEASES, &c., by WILLIAM ROBERTS, M.D., Fellow of Royal College of Physicians of London, &c. Philadelphia: H. C. Lea, 1866. 8vo. pp. 512.

THE EASTERN TURKISH BATH, by ERASMUS WILSON, F.R.S., with Notes and Appendix by M. L. HOLBROOK, M.D., 12mo. pp. 72; also ALCOHOLIC MEDICATION, by R. T. TRALL, M.D., 12mo. pp. 48. New York: Miller, Wood & Co., 1866.

THE ANNUAL DISCOURSE BEFORE THE MASSACHUSETTS MEDICAL SOCIETY, May 31, 1865, by BENJAMIN E. COTTING, M.D.

Statistics of Insanity, by Richard J. Dunglison, M.D., Physician to Bond Orphan Asylum.

Introductory Lecture; delivered at the reopening of New Orleans School of Medicine, by Professor E. D. Fenner.

Catalogue of Officers and Students of the University of Michigan, 1866.

On Epidemic Cholera, &c., by Nelson L. North, M.D., Surgeon of Metropolitan Police, Williamsburgh, N. Y. 8vo. pp. 39.

Report of Buffalo General Hospital for 1865.

Glycogenic Function of the Liver; also Sunbeam and Spectroscope, by Professor Howard Townsend, Albany, N. Y.

Twelfth Annual Report of the N. Y. Infirmary for Women and Children, 1865.

Rhode Island Twelfth Registration Report for 1864.

Annual Report of Surgeon-General, U.S.A., for 1865.

Medical News.

Appointments.

Bellevue Hospital.—Dr. J. W. Southack, Jr., has been appointed Curator to this institution.

Personal.

Dr. B. Fordyce Barker recently recovered five hundred dollars, with interest, from a patient's father. No defence set up, although it was stated during the trial that a special agreement had been entered into to cure. This statement the plaintiff contradicted in his evidence.

A Memorial of John W. Francis, M.D., LL.D., from the pen of H. T. Tuckerman, Esq., giving more particularly the social phases of his life, has recently appeared.

Prof. Jeffries Wyman has accepted the Professorship of Comparative Anatomy in the medical department of Harvard University.

Prof. C. A. Lee, formerly of Peekskill, N. Y., is about locating in this city.

Dr. John G. Adams will shortly sail again for Europe, to be absent for two years.

Dr. Benj. Ogden, who has been for several months afflicted with hemiplegia, is improving.

Dr. Thaddeus M. Halsted, late Surgeon to the New York Hospital, after being absent from the city for some time past, has returned and resumed practice.

Dr. J. McKnulty, who was so seriously injured by a fall from his horse while in service, is rapidly improving from his paralysis.

Prof. J. C. Draper, of the New York Free Academy, has just published a work on Physiology, which is designed more especially for the use of schools and academies.

Prof Frank H. Hamilton is at work on a new edition of his Fractures and Dislocations.

Dr. Alexander Murray, formerly Physician to the "Heart and Lung" class, and more recently Trustee of the Eastern Dispensary, has resumed his relations to the institution as physician to the class of "Diseases of Women."

The Metropolitan Board of Health.—The following are its members: Police Commissioners Thomas Acton, James G. Bergen, Joseph S. Bosworth, and Benj. F. Manierre, Treasurer; and Drs. J. O. Stone, W. Parker, and James Crane of Brooklyn; and Dr. John Swinburne, Health Officer. Jackson A. Shultz, Esq., who is also a member, is the President of the Board. Col. E. Clark has been appointed Secretary of the Board; Dr. E. B. Dalton, Sanitary Superintendent; Dr. E. Harris, Registrar of Records; and Col. George Bliss, Jr., Attorney. The officers' salaries have been fixed as follows: General Superintendent, $4000; Assistant Superintendent for Brooklyn $2,500; Secretary, $2,000; Registrar, $2,500; Sanitary Inspectors, $1,200.

N. Y. County Medical Society.—A stated meeting of this Society was held on the evening of March 5th, at the College of Physicians and Surgeons, Dr. T. C. Finnell in the chair. Dr. William B. Bibbins read a biographical sketch of the late Dr. D. S. Conant, after which Dr. Joel Foster made some remarks upon the cholera of 1832. He detailed some of his experience in the treatment of the disease by very large doses of calomel, in conjunction with warmth to surface, hot injections, etc. Dr. W. H. Thomson then followed with a very interesting paper upon Chlorosis. He is to continue the paper at the next meeting. The following delegates to the next meeting of the American Medical Association were elected:—Drs. Farrington, Ramsay, J. C. Smith, Downs, Hubbard, Finnell, Connolly, Lynch, Jno. Shrady, Leaming, Peaslee, Rogers, Sayre, Thoms, Bulkley, Warner, Farnum, Prince, Bahen, and Lawrence.

The East River Medical Association held a regular monthly meeting, March 6th. Dr. S. Waterman read a lengthy paper upon Scarlatina. Delegates to the American Medical Association will be elected at the next meeting.

New York Academy of Medicine.—At the meeting held March 7th, 1866, the discussion on cholera was resumed. Dr. L. A. Sayre, who opened the discussion, stated it as his belief that cholera was always carried from place to place, and that in order to guard against an invasion of the disease a rigid national quarantine should be enforced. He was followed by Drs. E. Harris, W. H. Draper, Vandeveer, and Herzog. The following gentlemen were elected Resident Fellows—Drs. Jarvis N. Husted, John A. Lidell, Jerome C. Smith, J. W. Purdy, and Howard Pinkney.

The Obstetrical Section of the New York Academy of Medicine held its last regular monthly meeting, February 19, at the house of the chairman, Dr. Joseph Worster. The discussion upon "Dysmenorrhœa" was the order of the evening, and was partaken in by Drs. Peaslee, Emmet, Prince, and others. This, we understand, is the only section of the Academy which is actually in existence—at least the only one which holds regular meetings.

Officers of N. Y. Obstetrical Society.—The following gentlemen have been elected to serve for the ensuing year: Dr. T. G. Thomas, President; Dr. Chas. Henschell, Vice-President; Dr. John G. Perry, Recording Secretary; Dr. Abraham Jacobi, Corresponding Secretary; and Dr. F. N. Otis, Treasurer.

Officers of the New York Pathological Society.—At the annual election of the New York Pathological Society, held Jan. 10, 1866, the following officers were elected to serve the ensuing year: Dr. Frank H. Hamilton, President; Drs. W. H. Draper and H. D. Noyes, Vice-Presidents; Dr. Geo. F. Shrady, Secretary; and Dr. W. B. Bibbins, Treasurer.

Bellevue Hospital Medical College.—The fifth annual commencement of Bellevue Hospital Medical College was held on the evening of the 24th ultimo, at the Academy of Music. There were 172 graduates. Addresses were delivered by Dr. Taylor, President of

the Faculty; Wm. M. Evarts, Esq.; the Hon. Simeon Draper, President of Board of Trustees. The Valedictory was pronounced by Leroy M. Gale, of the graduating class.

Medical Department of the University of N. Y.—The annual commencement of the Medical Department of the University of the City of New York took place on the evening of March 2d, 1866. Seventy-eight gentlemen received their degree of M. D. *in course*, and Shirly Abela, of Illyria, and Samuel B. Crawford, of Pennsylvania, *causa honoris*. The Mott bronze medal was awarded to Mr. Frank L. Satterlee, of N. Y.; the Van Buren prize to Mr. Juan Flores, of Costa Rica; and the Metcalfe prizes to Dr. Henry B. Forbes of Canada West, and Dr. James G. Burnet of New Jersey. The Chancellor announced the continuance of the Mott medals in perpetuity. The Valedictory Address, in verse, was delivered by Prof. Alfred C. Post.

College of Physicians and Surgeons.—The fifty-ninth annual commencement of this institution took place on the evening of March 9, 1866, in the Rev. Dr. Crosby's Church. An address to the graduating class was delivered by the Rev. Sullivan H. Weston, D.D., and the Valedictory by Dr. H. D. Nicol, of the graduating class. The number of graduates was 112. The following prizes were distributed:—1st Harsen prize, to Neil J. Hepburn; 2d Harsen prize, to Luiz Henrique Farreira D'Aguicar, Jun.; the 3d Harsen prize to John Petrie, Jun.; the 1st Thesis prize to J. Williston Wright; and the 2d Thesis prize to Gerardus H. Wynkoop.

The New York Society for the Relief of Widows and Orphans of Medical Men, according to the annual statement for 1865, has 109 members. Its invested funds now amount to $56,500. Income during the year, $10,013.37. Dispursements to annuitants, $1125.

The New York Infirmary for Women and Children, which has been in existence for twelve years, is still in successful operation, and is yearly increasing in usefulness. The attending physicians are, Drs. Elizabeth Blackwell and Emily Blackwell—Dr. Lucy M. Abbot being the assistant physician. The institution consists of a dispensary and well regulated hospital. During the past year, five thousand eight hundred and ninety-two persons have sought relief in the different departments; fifty-four hundred and fifty-two being treated in the dispensary, one hundred and six received into the house, and three hundred and thirty-four visited at their homes. It is the purpose of the managers of the institution to establish in connexion with it a school for the education of female physicians; and of the hundred thousand dollars which are said to be required for the proper carrying out of this plan, twenty-one thousand are already subscribed by some of our substantial and moneyed citizens, all of which will be paid in as soon as thirty thousand are pledged. The promise, considering the present indications, is a very good one, of our soon having in our midst a well conducted Female Hospital Medical College, which shall meet all the requirements in the case.

Relief for Indigent Cripples.—The New York Society for the Relief of the Ruptured and Crippled, held their quarterly meeting at Room 39, Bible House, on the 13th instant, when Dr. Knight, resident physician and surgeon, presented the following report for the quarter ending February 1st: Three hundred and twenty patients, for whom new surgical apparatus were required, received treatment, and one hundred and forty-six out-door patients were continued under treatment.

Of in-door patients, there are twenty-six little cripples children; six were discharged relieved during the quarter, and others received in their place, while many are waiting to be admitted. Only twenty-six can be accommodated in the rooms of the Society, at 97 Second avenue. A discussion ensued as to the possibility of enlarging these premises, and of obtaining means for that purpose previous to the time when the society will be enabled to erect a hospital adequate to the wants of the city for the relief of cripples. The officers of the society are:

President—John C. Green; *Vice-Presidents*—James Lenox, John David Wolfe, Stewart Brown, and A. R. Wetmore; *Treasurer*—Jonathan Sturges; *Corresponding Secretary*—R. M. Hartley; *Recording Secretary*—Joseph B. Collins.

New York Opthalmic School and Hospital.—The number of patients treated during the past year was 1030; which, according to the surgeons' report, is a decided increase over previous years. Its fourteenth annual commencement was held on Friday evening, the 23d ult. Twelve graduates received their diplomas upon the occasion.

Nursery and Child's Hospital.—The net proceeds of the Charity Ball, given January 29, 1866, for the benefit of the Nursery and Child's Hospital, were, according to the recent report of the treasurer, $11,941.

Examination by Naval Medical Board.—Boards of Medical Officers will convene at the Naval Hospital, Chelsea, Mass., Naval Hospital, Brooklyn, N. Y., and Naval Asylum, Philadelphia, Pa., on Monday, March 12, 1866, for the examination of candidates for admission into Medical Corps of the Navy.

Qualifications.—Letter stating residence, place and date of birth, together with the expressed wish by which board examination is desired, and accompanying testimonials of moral character, to be addressed to the Honorable Secretary of the Navy, or to P. J. Horwitz, Chief of the Bureau of Medicine and Surgery, Navy Department, Washington, D. C. Age not under 21, nor over 26 years. Expenses during examination not allowed by government to candidates.

Home for Destitute and Disabled Soldiers.—The Ira Harris United States Hospital at Albany, N. Y., has been converted into a home for destitute and disabled soldiers of the State. One hundred have been received. The institution has accommodations for three hundred. They are provided for at the expense of the State.

Statistics of Army Medical Staff.—Since April 1861, there have been appointed (547) five hundred and forty-seven Surgeons and Assistant Surgeons of Volunteers;

Mustered into service (2109) two thousand one hundred and nine Volunteer Regimental Surgeons, and (3882) three thousand eight hundred and eighty-two Volunteer Regimental Assistant Surgeons; employed as Acting Staff Surgeons (75) seventy-five, as Acting Assistant Surgeons (5532) five thousand five hundred and thirty-two. As far as returns have been received, during the war (34) thirty-four officers of the Medical Staff have been killed, or died of wounds received in action (24), twenty-four wounded, and (183) one hundred and eighty-eight have died from disease or accident incurred in the service; (1) one died in a rebel prison, (6) six of yellow fever. A completed record will increase this number. Two hundred and fourteen (214) Surgeons and Assistant Surgeons of Volunteers, reported as supernumerary, have been mustered out.—*Annual Report of Surgeon-General, U.S.A., for* 1865.

Errata.—Page 19, Prof. Hamilton's Clinics, 3d paragraph, 15th line, read *gaps* instead of *flaps*. Page 20, 3d paragraph, line 2, read *or* instead of *on*.

Original Communications.

ON CHRONIC URETHRAL DISCHARGES;

BEING THE SUBSTANCE OF A CLINICAL LECTURE DELIVERED AT THE UNIVERSITY MEDICAL COLLEGE DURING THE WINTER OF 1865-66.

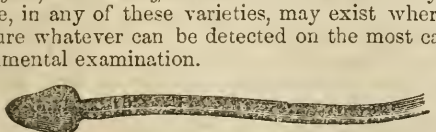
By W. H. VAN BUREN, M.D.,

PROFESSOR OF ANATOMY, &c., &c.

In a very large majority of the cases applying for relief with chronic discharge from the urethra, commonly known as gleet, we find that this discharge is merely a symptom of a more serious disease, viz. stricture of the urethra. Hence the clinical rule so commonly enforced by good surgical authorities: *in all cases of long standing urethral discharge, examine the patient for stricture.* The reasons for this rule are obvious. The more essential consequences of contraction of the calibre of the urethra, viz. a diminished volume of the stream of urine, and the necessity of a longer time and more effort to empty the bladder, are not present in the earlier stages of the disease, which is notoriously insidious in its progress; and they always advance so slowly as not to attract the attention of the patient until the stricture has already existed for some months—often for years. Hence he frequently has no knowledge of its existence until it is ascertained by a surgical examination; complaining only of the more obvious symptom, the gleety discharge.

The nature and amount of this discharge vary so greatly in different cases that no evidence of the presence or absence of stricture can be gathered from *its* examination. It may be profuse and purulent in character, as when furnished by a false passage which complicates the stricture. It may be transparent and scanty, or variable in quantity and color from irregularities in diet and drink; or apparently absent entirely as a discharge, and only visible in the shape of yellowish-white filaments floating in the urine after it is voided, washed out and rolled into shreds by the stream as it passes through the canal. I have often examined these minute floating particles under the microscope; they consist of pus corpuscles enveloped in mucus, rolled into thread-like masses by the friction of the urine against the urethra. Besides these microscopical elements we find also in the discharge of gleet the debris of the different varieties of epithelium from the urethra, the ducts of Cowper's glands, the ducts of the prostate and ejaculatory canals, and occasionally casts from the cæcal pouches or follicles of the prostate itself.

The discharge is furnished not only from the altered surfaces of the urethra which correspond with the stricture, but often from the *inflamed membrane lining the dilatation of the canal which always exists, in a greater or less degree, immediately behind the stricture.* Finally, discharge, in any of these varieties, may exist where no stricture whatever can be detected on the most careful instrumental examination.



And now let us consider the best mode of examining the urethra, in a case of gleet, to detect the existence of a stricture, if present; for this purpose you require a flexible bougie with a bulbous expansion at its extremity, of the above model:

It is of French manufacture, and known as the *bougie à boule.* It is made of different sizes, ranging from No. 1 to No. 14 of our scale. Notice that its somewhat olive-shaped extremity is conical, tapering to a rounded point, with a more abrupt bevel at its shoulder. You select the largest of these bougies which the orifice of the patient's urethra will admit, and introducing it with extreme gentleness, push it very slowly along the canal into the bladder. If it should be arrested, make very gentle pressure against the obstacle for three or four minutes, endeavoring at the same time to distract the patient's attention by a question or two, reassuring him if the instrument causes pain, and it will thus glide onwards, if the obstruction is due to spasmodic contraction of the muscular fibres which surround the canal. If it does not free the obstacle by this manipulation you have probably encountered a stricture, and, by substituting a smaller bougie, and if necessary still another yet smaller, always employing the same extreme gentleness, you will finally pass the stricture. Then, in withdrawing the bougie, by marking the point on its shaft when its shoulder again encounters the obstruction, you will be able to form a judgment as to its length. So that by this mode of examination you will have made a diagnosis: 1st, of the existence of stricture; 2d, of its distance from the orifice; 3d, of its degree of tightness; 4th, as to its sensibility.

I know of no better mode of examining for stricture than this, under these circumstances.

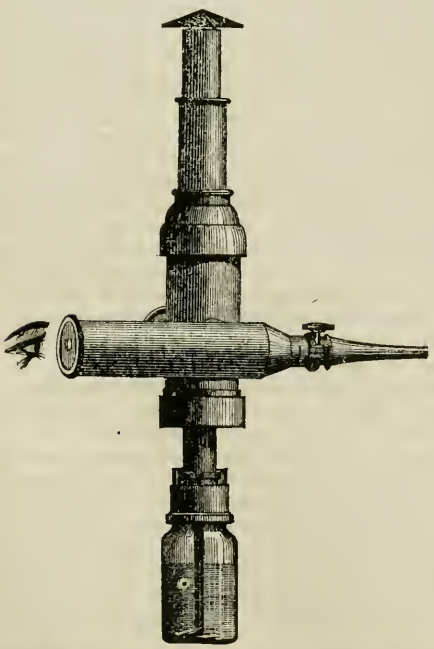
Having thus established a diagnosis, the case is no longer a simple gleet, but a case of stricture; and the appropriate treatment for stricture, of which we will speak hereafter, will afford the best chance of cure for the gleet. For a stricture thus detected for the first time, treatment by dilatation, by means of bougies and steel sounds, will be in the great majority of cases, if properly carried out, entirely competent for a cure. And, when the stricture has disappeared by the use of these means, I can state to you, as our clinical experience, that the gleet will also have been cured. As the rule, this is true; but, unfortunately, there are not unfrequent exceptions to this rule. I say *unfortunately*, after due consideration; inasmuch as these exceptional cases of gleet dependent upon stricture, in which the discharge still persists after the stricture has been entirely removed by proper treatment, are notoriously difficult to cure, and constitute a class of cases very troublesome to both patient and surgeon.

The remedies usually employed, after the use of bougies has failed, are local and constitutional. Amongst the former are injections of sulphate of copper, chloride of zinc, and nitrate of silver; bougies smeared with Guthrie's ointment; blisters to the penis or perinæum. Under the latter head, tincture of sesquichloride of iron, tincture of cantharides, cod-liver-oil, sea-bathing &c., &c. These remedies are applied empirically in consequence of our limited knowledge of the morbid anatomy of the urethral mucous membrane, and the imperfection of the means hitherto employed for its exploration. Hence the unsatisfactory results which so often follow the usual modes of treatment.

When we consider the length and narrowness of the canal lined by this membrane, and its numerous extensions into the ducts of the various glands which pour their secretions into the common outlet, and the complexity of its connexions and sympathies, it is sufficiently obvious why it is so difficult a task to fix the seat and cause of a chronic discharge from the urethra. We require better means of exploring the canal; and it is by improvement in this direction that more accurate physical diagnosis and more successful means of treatment are to be attained. What the application of percussion and

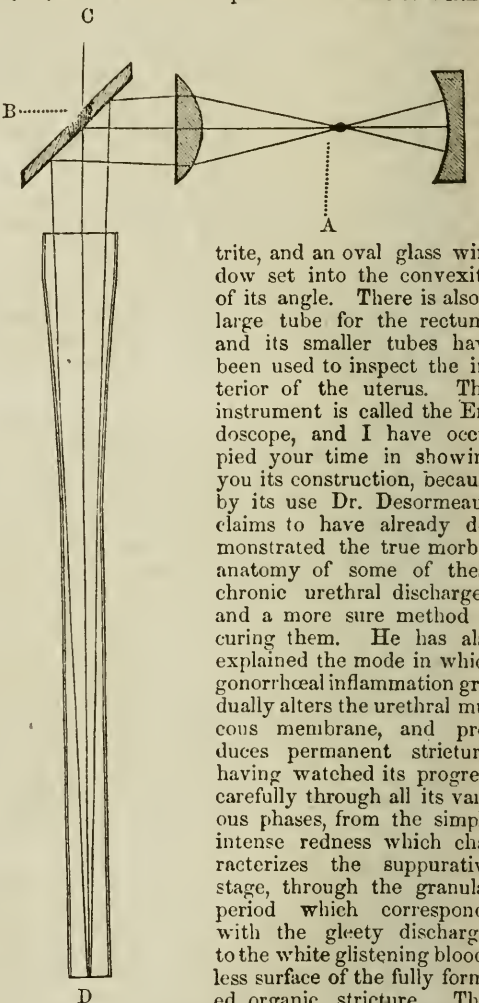
auscultation has accomplished in improving our knowledge of diseases of the chest; what the invention of the ophthalmoscope, and the laryngoscope, and the speculum, has effected in diseases of the eye, the larynx, the vagina, and uterus, we want applied to the urethra. Before Recamier's invention of the speculum uteri a vaginal discharge conveyed to the mind of the physician as uncertain and obscure an idea of the lesion which gave rise to it, as a chronic urethral discharge does at the present time. To-day it requires but moderate skill to determine by the use of the speculum whether the cause of the discharge lies in the walls of the vagina, the neck of the uterus, its cavity, or the cavity of the uterus itself. Many years ago Segalas of Paris, stimulated by Recamier's success, attempted, but in vain, to illuminate the depths of the urethra through a speculum. More recently Desormeaux, a colleague of Civiale at the Necker hospital, acting upon a suggestion of the famous Fresnel, of lighthouse celebrity, as to the management of the light, has perfected an instrument, after some years of study and labor, which promises to be more successful. Through the kindness of Dr. Desormeaux, I enjoyed an opportunity of examining its construction and mode of application in a number of cases last summer. I am satisfied that it is a legitimate addition to our means of exploring the urethra, and that it promises to rank with the ophthalmoscope and laryngoscope. Like these it requires tact and familiarity with its use before it can be adapted to the daily wants of practice; but so also do the finger and the ear before they are useful in practising the touch or auscultation.

The instrument somewhat resembles a dark-lantern, in which the light is collected by means of lenses into a pencil, which, falling upon an inclined mirror, is projected through a hollow tube introduced into the urethra, and illuminates an area of the surface of its lining membrane equal to the diameter of the open extremity of the tube. As the tube is slowly withdrawn the whole length of the urethra may be thus brought under inspection.



The tube introduced separately into the urethra, has its open extremity filled by a wooden plug attached to a stilet. This is withdrawn, and the lantern is afterwards readily attached to its slightly expanded external opening, when the instrument is ready for use. The tube is of polished metal, blackened within to prevent reflection, and the largest size employed is about number 13 of our scale. You will observe that the pencil of light is reflected at a right angle by the inclined mirror, which has a hole in its centre through which the eye of the operator looks into the tube. The source of illumination is thus prevented from interfering with the line of sight; this is the ingenious feature of the instrument suggested by Fresnel.*

For inspecting the cavity of the bladder a catheter is employed, with a short sharp curve like that of a litho-



trite, and an oval glass window set into the convexity of its angle. There is also a large tube for the rectum; and its smaller tubes have been used to inspect the interior of the uterus. This instrument is called the Endoscope, and I have occupied your time in showing you its construction, because by its use Dr. Desormeaux claims to have already demonstrated the true morbid anatomy of some of these chronic urethral discharges, and a more sure method of curing them. He has also explained the mode in which gonorrhœal inflammation gradually alters the urethral mucous membrane, and produces permanent stricture, having watched its progress carefully through all its various phases, from the simple intense redness which characterizes the suppurative stage, through the granular period which corresponds with the gleety discharge, to the white glistening bloodless surface of the fully formed organic stricture. This granular stage of urethral inflammation following gonorrhœa and characteristic of this disease, is the lesion most interesting to us at present, as throwing light upon the pathology and treatment of gleet. Our knowledge of its existence is due entirely to Desormeaux' researches with the Endoscope. It appears that, after gonorrhœal inflammation of a certain degree of intensity and duration, patches of the urethral membrane become studded with minute granulations in particular localities of the canal, which are the sure forerunners of permanent stricture,

* A. The flame of the lamp; B. The hole in the perforated mirror; C. The point where the eye is applied; D. Extremity of tube.

and that more or less gleety discharge is poured out by these granular surfaces, until in the progress of the disease they become converted into the dense non-vascular tissue which constitutes the organic stricture. In the sequence of pathological changes there is an exact analogy between gonorrhœal urethritis and purulent conjunctivitis, and the similar affection, equally well known, of the os uteri. Granular conjunctivitis affects by preference the palpebral conjunctiva of the upper eyelid, and if its progress is uncheeked it leads inevitably to fibrous degeneration of the affected membrane. According to Desormeaux, the same is true of gonorrhœal urethritis. The diseases are equally obstinate, and curable only by similar local applications. In his volume on this subject, published last year in Paris, a case is related in which this granular disease of the urethra had existed eleven years, accompanied by a gleety discharge, and which, in the language of the author, furnishes "a complete picture of the affection." Perhaps, as it contains details also of the mode of treatment by which the disease was effectually cured, I can do no better than introduce here a translation of the case:

"D—— consulted me in the month of October, 1855, for an acute orchitis. He had contracted gonorrhœa in 1846, and had been subject to a slight transparent discharge ever since its cure. Ordinarily, he gave himself little concern about it, but always after rising in the morning, on squeezing the urethra before urinating, he could force out two or three drops of clear, stringy discharge. I noticed also that his stream of urine was smaller than natural, that it was slightly twisted in direction, and lacked projectile force.

"As soon as he recovered from his inflammation of the testicle, the patient, who had become anxious about his difficulty in passing water, submitted to a thorough examination. By the aid of a *bougie à boule*, I discovered, in the bulbous portion of his urethra, a stricture, through which I passed with some difficulty an instrument less than a line in diameter. Its passage caused pain, and the bulbous extremity was bloody when withdrawn. The stricture was more than two-thirds of an inch in length. On introducing the tube of the endoscope and carrying it down to the stricture, I brought in view a red inflamed surface, covered with minute granulations about the size of millet seeds, some larger, some smaller. I had, in fact, under my eye, a granular ulceration, presenting exactly the appearance of the same affection of the neck of the uterus. In withdrawing the tube, the granulations disappeared, and I saw nothing but a red surface, which in its turn passed out of view, and as far as the meatus the remainder of the urethral mucous membrane was perfectly healthy.

"The discovery of this lesion seemed to me to explain fully the whole pathological history of the case; for it was easy to understand that a continuous discharge could be kept up by a granular ulceration, similar to those we see daily on the palpebral conjunctiva and uterine neck, and which are so notoriously persistent and difficult of cure. The ulceration explained at the same time the chronic thickening of the urethral mucous membrane, causing the stricture I had just made out. I could also see clearly, by the persistence of this granular surface, why, contrary to the testimony of most writers on this subject, a chronic discharge from the urethra continues, in some cases, after the thorough dilatation of the stricture to which it is attributed; or, when temporarily checked during treatment, reappears as soon as the use of instruments has been discontinued, as I have seen so often happen.

"I decided finally to treat this lesion of the urethra by the same means employed in similar granular ulcerations of the os uteri, and, in order to verify the relation of cause and effect probably existing between the ulceration and the stricture, I concluded to withhold the use of bougies for the latter.

"The endoscope afforded me the means of applying remedies to the diseased surface exactly as they are applied to the os uteri at the bottom of the speculum. I made use of cauterization, by a concentrated solution of nitrate of silver, carried through the tube, and was able to see distinctly the immediate effect produced upon the granular surface. These cauterizations were repeated every three or four days, the patient, in the interval, using injections in the urethra, of a decoction of rose leaves. Although the strength of the solution of the nitrate of silver was one part of the salt to three parts of water, the pain produced by its application was slight.

"This treatment, commenced on the 5th of December, 1855, had been carried out more than a month, when, on the 25th of January, 1856, without anticipating such an occurrence, I found that the tube of the endoscope could be passed through into the bladder; it had traversed the seat of the stricture without communicating the sensation as of having freed any obstacle, although its diameter was nearly three lines, and it fairly distended the anterior portion of the canal. It was evident that the stricture had disappeared, without any other treatment than that applied to the granular surface.

"I was thus enabled to examine the whole extent of the urethral mucous membrane, from the neck of the bladder forwards. The prostatic portion was slightly red; this redness increased in the membranous portion, and, towards its union with the bulbous expansion of the spongy portion, the ulcerated surface was recognised, its granulations being now hardly visible. The patient asserted that for some days previously he had passed as large a stream as in early life. Three additional cauterizations removed all remaining traces of the granulations; after this the patient continued his urethral injections for ten days, and then discontinued all treatment.

"A few days later, the discharge had entirely disappeared, and the *bougie à boule* traversed the whole length of the canal without encountering any obstacle. The endoscope showed but a slight redness remaining at the seat of the disease, and it was obvious that the ulceration had been entirely cured, and also that the stricture had disappeared under the influence solely of the treatment applied to the granular ulceration.

"I have had this patient under observation for eight years, and he has had no return of his disease." *

It is apparent, then, if M. Desormeaux's observations and deductions are confirmed by the experience of other observers, that his instrument has already added to our exact knowledge of the pathology of gleet and stricture, and that it also affords us more certain means of applying remedies to the cure of these affections.

I am able, from a somewhat limited experience, to speak favorably as to its practical utility. By the aid of my friend, Dr. Gouley, who has acquired much facility in the use of the endoscope, I have satisfied myself of the existence of this granular condition of the urethra, and that its presence explains the persistence of a gleety discharge after a fair trial of bougies and sounds, as proved by its cure after the careful application of solution of nitrate of silver to the granular surface.

Desormeaux's instrument has been modified and improved in some respects by Cruise of Dublin, who testi-

* De l'Endoscope et de ses applications au diagnostic et au traitement des affections de l'Urethre et de la Vessie: Leçons faites à l'Hôpital Necker, par A. J. Desormeaux, chirurgien de l'Hôpital Necker de Paris, 1865, p. 48.

fies as to its practical value in a paper upon the endoscope and its application, in a recent number of the Dublin Quarterly Journal of Medicine.

Of some other forms of chronic urethral discharge, depending upon a morbid condition of the more purely genital organs, as the ejaculatory ducts, seminal vesicles, and prostate gland, including that described under the somewhat fanciful name of "Prostatorrhœa," I shall take occasion to speak hereafter.

A CASE OF VERSION BY EXTERNAL MANIPULATION.

By THOMAS B. STIRLING, M.D.,

RESIDENT PHYSICIAN TO THE NEW YORK LYING-IN ASYLUM.

Honora Fraley, was born in Ireland; is 28 years of age, of medium height, sanguine temperament, fair complexion, well formed, and presents the appearance of rugged health, which, she says, she has always enjoyed. She has been married six years, and during that time has suffered one miscarriage four months after marriage, and has borne four children, the last of which alone was born alive.

She was admitted to the New York Lying-in Asylum, December 27th, 1865. In consequence of some information derived from the nurse, I deemed it necessary to obtain from the patient a careful history of her case. She stated that she expected to be confined every day, and that she was very much exercised in mind with regard to the result, for she had had already three cross-births, and that she felt very much the same way as she had done previous to her other confinements. When asked what she meant by that, she replied that the "children lay wrong; they lay cross-wise, and that all three had to be turned in the womb, the attendant introducing his hand for that purpose, and that they were born by the feet; that the operation in each case took very long—over two hours—(of course an exaggeration), and that she thought the children died by hanging a long time by the head." She further stated that "in the first confinement she had to keep her bed for three months, and did not regain her strength for six months more. She had not been quite so ill with the other two, but still had been quite prostrated in both instances." Various interrogations were put to her with the view of testing her intelligence and reliability, and it is believed that the preceding statement, with the following additional particulars, may be looked upon as substantially correct.

All three confinements took place in London, and within the last four years.

In the first confinement—date probably August, 1861—she was attended by Dr. Dickerson, parish physician of Chelsea; the patient then living in Orford Cottage, No. 4 Orford street, her husband being employed as a laborer by Mr. Kelk, builder.

In the second confinement—date probably December, 1863—she was attended by a midwife, Mrs. Godwin, who also, it appears, performed podalic version. A physician was called in by the midwife in the crisis of the case, but he did not arrive until after the birth of the dead child; his name was never known to the patient.

In the third confinement—date Feb. 16, 1865—she was attended by Dr. Braithway (Braithwaite?), Lambeth Walk, near Westminster. She became again pregnant in March, 1865, and came to New York in August last.

In consequence of the interest excited in her case, a careful examination of her condition was then made, Dec. 27th, four days before her confinement, both externally and per vaginam. The child was readily found to be lying in utero, in an unmistakably transverse position, the head being on the left side, and the feet on the right, with the back arching towards the fundus uteri. No signs of approaching labor could be detected per vaginam, and no presenting part could be discovered. The cervix had still some length, and the os was not patulous in any appreciable degree.

An attempt was made at this time to turn the fœtus by external manipulation, and the ease with which this was quickly accomplished, excited in me no little surprise, as it was the first time I had ever attempted such a procedure. It was first suggested to me by a lecture of Prof. T. G. Thomas, heard a few days before.

The head of the child was carried or pushed downwards towards the pubes, and was readily pressed into the pelvic cavity, and could be retained there by holding it in position. It was thus left, and the patient was not seen again until the following Sunday. On this day (December 31st), at half-past 9 A.M., the attention of the resident physician was called to this patient by the nurse. She had been unable to remain in bed during the previous night, from the recurrence of pains, and she was thought to be in labor. Examination showed this to be the fact; the os uteri was completely dilated; the membranes were protruding and filling the vagina; they were still unruptured, and were of the usual wedge-like form when the breech presents. No presenting part could be made out; nothing being found of greater consistency than the bag of waters.

By external examination, the child was distinctly made out to be lying in a transverse position, the head being now on the *right side* of the abdomen, so that the fœtus had shifted its position since it was first observed, and had already made one half of one complete revolution in utero. Fearing the rupture of the membranes before version could be produced, the patient was kept scrupulously on her back until the lying-in chamber could be prepared for her reception. After an interval of half an hour I again visited her, and everything had remained as before; the pains being slight, and recurring only at long intervals.

An attempt at version was now made by pushing the head in a downward direction, towards the pelvic cavity, and at the same time favoring this movement by pushing the nates in an opposite direction so as to cause the head to retrace the quarter revolution which it had spontaneously made. This manœuvre not succeeding, it was next tried to move the head in the contrary direction, and progress in this was at once noticed.

This movement was steadily but cautiously followed up in the intervals of the pains, for the external manipulations had the effect of making these both more frequent and more severe, so as to cause some apprehension of the membranes rupturing before the version could be completed. Persevering in this moderate and cautious course for about an hour and a half, I had the satisfaction of following the head completely round the abdomen until it was again fairly lodged in the left iliac region.

It was now three-quarters past 11 A.M., and I was compelled to leave the patient in charge of the nurse for half an hour, to keep an appointment, taking pains to instruct her how to retain the head in the favorable position gained, until my return. When I came back, I found that, notwithstanding my cautions, the head had been permitted to go back in its course an entire quarter of a revolution, so that it now occupied precisely the position in which it had been found four days before.

At half-past 2 P.M., the operation of version was again resumed, and the advanced position was regained with

even greater facility, and the head went readily beyond, so as to be brought under the pubes, and easily pushed into the superior strait.

The nurse was directed to hold the head in this position, and an examination was made per vaginam The bony tissue of the head could, with some care, be made out, quite high, and in front, under the pubic arch ; the sutures were distinctly recognisable.

The propriety was here considered of rupturing the membranes at this time, so as to fix the head in the strait, or whether it would be better to trust to the nurse to hold it there until nature should complete the labor. The pains being slight, and it being very desirable to save the life of the child if possible, it was determined to avoid the danger arising from too great and protracted compression of the head, and to leave the membranes intact as long as possible. It was thought that a very little attention on the part of the nurse would enable her to hold the head in its now favorable position; and indeed she succeeded perfectly in this to the end.

At 3 P.M., the patient was again visited; the pains had continued slight and unfrequent; the head seemed to be becoming slowly engaged in the superior strait, but required still to be held in position, as it had shown a tendency to recede again.

At 5 P.M. there was a sudden call for the doctor, for in consequence of a pain the membranes had ruptured, and something had passed out which was thought by the patient to be the head of the child Examination showed that a portion of the amnion, containing fluid, in the form of a filled bladder, was lying in the bed, but still attached within the uterus by a long membranous strip. Passing the hand within the vagina, a mass of prolapsed cord was encountered, pulsating strongly, but jammed between the head and the rectum. The patient was immediately placed upon her face and knees, in the position recommended by Dr. Thomas in such an emergency, and then the pendent bladder of fluid was removed. An endeavor was now made to return the cord to the uterus. This was not at first successful, but by maintaining the patient in this position for about a quarter of an hour, the head receded from its impaction in the strait, the hand could be passed into the vagina, and up to the mouth of the uterus, and the cord successfully carried over the head and retained there. The patient was kept in this position some time, lest the cord should return; but the pains soon increased, and the head advanced steadily in the strait, and when there seemed to be no further risk of the cord returning, the patient was placed upon her left side.

The labor advancing rapidly, and everything being favorable, it was ventured, after a little while, to place her on her back in the usual obstetric position.

At half-past 6 P.M., careful examination was now made, and the position was not considered most favorable, being almost transverse—the right ear being felt distinctly in the median line under the symphysis. With some manipulation, however, the vertex was brought down and into more favorable relations to the pubic arch, and by this the labor was very much hastened. The delivery was completed at 6.40 P.M. The child seemed lifeless, paralysed as it were, rather than asphyxiated. It was very pale and flaccid in body and limbs. The cord was beating strongly, however, the bones of the head quite loose, and the caput succedaneum well marked and on the right side of the head, and in *front of the ear*, showing how the head had been engaged in the pelvic strait. It required full fifteen minutes' effort to establish regular respiration even feebly, but the cord never ceased to beat markedly. It was finally cut before it ceased beating, and before respiration was fully established, and without tying it, but it refused to bleed even when the child was placed in a tepid bath. Finally, respiration was fully though feebly established, and at the end of a few days it showed a very vigorous vitality. It nursed strongly and grew rapidly, and the mother convalesced unusually well, having no drawback whatever. The child's weight at birth was eight and a half pounds, and the placenta two and a quarter pounds. It is now four weeks old, is doing well, and has recovered from the effects of vaccination, which was performed at the tenth day.

VESICO-VAGINAL FISTULA,

OF TWENTY-THREE YEARS' STANDING, SUCCESSFULLY OPERATED UPON.

By E. P. BENNETT, M.D.,

DANBURY, CONN.

The lady who was the subject of this paper was 48 years of age, and naturally of a remarkably good constitution. Twenty-three years ago she was delivered of her second and last child. The labor was rather protracted, and forceps were made use of. From this date she suffered from incontinence of urine, and all the ills which flow from this terrible affliction. She was from time to time under the care of different physicians for her urinary troubles, but, strange to say, for twenty-three long terrible years, no one had ever discovered or suspected her real trouble. Exhausted and discouraged, she finally called upon me about a month ago, and at the first visit I ascertained the nature of her difficulty, and was able to promise her speedy relief. Upon examination I found a hole at the neck of the bladder about an inch in length, extending transversely as though the neck of the organ had been torn off. Out of this opening, a very vascular fungus projected, about the size of a walnut. This fungus would occasionally fill up the rent in the bladder, when she would suffer terrible bearing-down pains, and would experience great difficulty in urination. The vagina and vulva were swollen and tender, and the urine was loaded with muco-purulent matter. Her strength and appetite having greatly failed, she was in every respect in a miserable plight, and an object of the deepest commiseration.

I immediately confined her to her bed, washed out the parts with new milk and water and flax-seed tea, and in a few days with her consent I proceeded to operate. I was ably assisted by my son, Dr. W. C. Bennett, and by my brother, Dr. F. N. Bennett, of Orange, New Jersey. The parts appeared to be tied down by adhesions to the inside of the pubes, and great difficulty was experienced in bringing them into view. To overcome the difficulty I introduced a straight silver catheter into the sound part of the urethra, and then into the opening of the bladder, and by this I was enabled, by the aid of an assistant, to lift the parts up, and bring them fairly into view. I then removed the fungus, and after a lengthened period I succeeded in so freshening the edges of the rent, as to venture to bring the opening together, which I did with seven silver sutures. It was a long and tedious operation, as the parts, from continued inflammation, had become so exceedingly vascular, that every touch with the knife deluged the parts with blood, and delayed further proceeding until the hæmorrhage abated. I used in this operation no clamp or button, but simply the silver suture. On the tenth day I removed the stitches, and to my inexpressible delight

the success was complete; every part had firmly united, and not a single drop of urine has since escaped.

The catheter was continued for a few days, then removed and used occasionally. She can now retain her water perfectly, and what is still more remarkable, she has complete power to empty the bladder at will. I supposed that after the bladder had been so long contracted and its walls so thickened, it would be quite a long time before it would be capable of containing much fluid or of expelling it with facility, but in this I am happily disappointed. After so many years of such an amount of suffering, she can hardily realize that she is again restored to health and society.

This is my second operation of this kind, both of them being successful. There is one fact in regard to this case which is both astonishing and humiliating, and that is this—that for twenty-three years she had been attended for weeks and months together by regularly educated practitioners, as well as quacks, and no one has ever so much as hinted at or suspected the nature of the case, when all the symptoms were such that it seems hardly possible that it could have been mistaken by the merest tyro in the healing art.

Original Lectures.

ON CHOLERA.

By A. CLARK, M.D.

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.

Lecture II.

The Pathological Anatomy of Cholera (continued). *Post-mortem appearances of Kidneys, Spleen, Lungs, and Heart. The Symptoms of the Disease—Diarrhœa Vomiting, Cramps, Suppression of Urine, Change in Voice, Collapse, etc.*

I will proceed with the examination of the lesions that are noticed in those who die of Asiatic cholera.

The *kidneys* come next to be considered. In these there are no very marked changes. There is a certain amount of increased vascularity, chiefly referred to the veins and the portions of these organs that are nearest the calices; and in general there is a pretty free exfoliation of the epithelial lining of the pelvis and tubes that open into this cavity. In the typhoid period, or stage of reaction, an appearance has been observed by Virchow (and certain other pathologists), which he regards as analogous to that which attends Bright's disease. You will soon learn that there is a marked disturbance in the secretion of these organs; and, from the nature of these disturbances, you would naturally enough expect that there would be some resemblance between the kidney lesions in the two diseases, if the observation be limited to the early stage of the chronic affection.

The *spleen* has not been noticed to undergo any very marked alteration; it is often described as flabby; it is described as enlarged in regions where intermittent fever prevails; but such enlargement is referred, not to cholera, but to previous miasmatic influences. The *bladder* is found almost uniformly contracted and nearly empty, perhaps in a majority of cases actually empty; and in those that contain any fluid, there is only a drachm or two, and that is rarely healthy urine, but almost always a milky fluid, sometimes reported as pus. Whether it is or is not, can be readily determined by the microscope; it is highly probable that the purulent appearance is given to the fluid by exfoliated epithelium from the kidneys, or the bladder itself, which is mingled with it. This completes the consideration of those organs found below the diaphragm likely to be involved in this disease.

If we turn now to the contents of the thorax, we shall find some important facts bearing on the theory of cholera. In passing, I may say that the examination of the *larynx* shows in a certain proportion of the cases a degree of vascularity regarded as unnatural; that the vocal chords appear in general to be loose and flabby, and rarely a little swollen from œdema. This, however, is not, probably, the chief cause of the feeble voice and aphonia, of which I shall have occasion to speak directly.

In view of the new theory of the cholera collapse just now proposed by Prof. George Johnson, well known in this country through his excellent book on the Diseases of the Kidneys, it will be desirable to acquire as definite an idea as possible of the quantity of blood found in the *lungs* of those who die in this stage of the disease. He holds that the lungs, under such circumstances, contain much less than the usual quantity of blood, and says, "With respect to this extremely anæmic condition * * * there is an entire agreement among those authors who have most accurately described the *post-mortem* appearances. There is something surprising, as Briquet and Mignot observe, in the contrast between the almost constant occurrence of this extremely anæmic condition of the lung, from which scarcely a few drops of blood flow when the tissue is cut, and the hyperæmia of most of the other viscera. There is a remarkable contrast, too, between this anæmia of the lung, when death has occurred during collapse, and the great engorgement of the lung which is almost invariably found when death occurs in the febrile stage which often follows reaction." He refers to Dr. Parkes as stating in substance that "the tissue of the lungs is, in most cases, of a pale color, dense in texture, and contains less than the usual amount of blood and air."

Drs. Baly and Gull give, on the condition of the lungs, a resumé of the reports they have received from the physicians of England, and quote four other authorities, among whom are Briquet and Mignot. It is but fair to complete the extract Dr. Johnson has made from these authors, by adding what follows their reference to the contrast between the state of the lungs and that of other viscera—"The posterior parts [of the lungs] were however frequently the seat of a certain degree of engorgement; this was noted in sixteen cases, but in only six was it well marked." "In two there was serous infiltration, accompanied by extreme congestion of the posterior parts." Virchow is quoted as saying: "On the removal of the sternum, the lungs, in general, collapse to the spine, except when there existed bronchial catarrh or œdema. The lower lobes were for the most part much congested." Reinhardt and Leubuscher report that "the lungs were found, for the most part, much contracted, * * * the pulmonary tissue was in general dry and anæmic, especially in the upper lobes; on section, a small quantity of blood oozed from the larger veins. The lower lobes were, in general, full of dark blood." Leudet states: "The lungs were commonly healthy," there was "frequently hypostatic congestion."

The summary of the reports made to Drs. Baly and Gull, they give as follows: "In the majority of cases fatal in the algid stage, no other morbid change existed than the engorgement of the lower and posterior parts of the lungs with dark blood. In some instances this was so complete as to cause portions of the pulmonary tissue to sink in water. The anterior and superior

parts were dryer than natural. * * * In certain cases, the pulmonary tissue throughout was full of dark blood."

There are few more competent observers than Drs. Pennock and Gerhard. In their report of cases occurring in the first epidemic in Paris, the autopsies being made under the direction of some of the best physicians of that city, they do not appear to have been impressed with the idea that the lungs were so extremely anæmic. They speak of these organs sometimes as "light;" but in their summary of thirty-four examinations, they do not refer even to this quality, but lead us to the conviction that they found nothing particularly noteworthy in the quantity of blood in the lungs. Indeed I may say, that in a somewhat critical examination of the reports of the *post-mortem* examinations of many physicians intrusted with cholera hospitals, the possibility of "extreme anæmia" of the lungs in the algid stage had not occurred to my mind till I saw the papers of Dr. Johnson. I will not assume that he has too hastily adopted this conclusion, but will ask that the question be submitted to the investigation which his views would naturally suggest.

In general, the authors I have consulted describe the lungs as healthy. In a few they are the seat of little apoplectic effusions; emphysema of both varieties is sometimes found; and in those who die in the period of reaction or typhoid stage, they are occasionally found to be the seat of congestion and hepatization. Pneumonia, in a greater or less degree, is a common occurrence in this stage. It is noticed by almost all observers that a very small proportion of those who die of cholera show tubercles in their lungs. This is a fact interesting in one respect; it would teach us that persons who are affected with tubercular consumption are at least no more liable to this disease than those who possess healthy lungs. Ecchymotic spots are sometimes noticed under the *pleura*, otherwise this membrane is found almost uniformly healthy, except in the period of reaction, and then there are noticed upon it spots of lymphy exudation in certain of the cases.

The *heart* does not in itself seem to undergo any very marked changes; it usually has rather a pale appearance, sometimes, however, darkened by the slow return from it of the venous blood, and sometimes its lining membrane is dark from imbibition; it is occasionally a little flabby, but for the most part presents what may be regarded as a healthy appearance. Its contents will interest us more than the organ itself. It is often found closely contracted in its left cavities, the right being filled with blood; sometimes all the cavities contain blood, but generally when all contain blood, the right auricle and right ventricle contain more than the cavities of the other side. Here, again, Dr. Johnson makes a point in favor of his theory, assuming, as he undoubtedly may, that in the great majority of cases in which death has occurred in the stage of collapse, the right cavities are filled, and the left empty, or nearly so, and the ventricle firmly contracted, and he adds, that the pulmonary arteries are also filled with blood. He associates these facts with the anæmic condition of the lungs, and collates both with certain symptoms to be hereafter described, and thinks he finds reason for asserting that there is a formidable obstruction to the progress of the blood from the right heart into the lungs, produced by an unnatural contraction of the branches of the pulmonary artery. The *blood* itself is an object of particular attention. It is thick, and is compared frequently with molasses; it undergoes coagulation but imperfectly. In quite a large proportion of cases, the blood in the heart and in the large veins is not coagulated at all. Pennock and Gerhard report that in thirty-four examinations, they found the blood entirely liquid in the heart in eleven; that it was fluid with bloody coagula intermingled in twenty-three; not firmly coagulated in any. It would seem then pretty clear, inasmuch as other observations correspond strictly enough with these, that the blood has undergone a change which is not compatible with full and ready coagulation. In this respect it resembles the blood of those who die from typhoid fever. The blood is to be found in the veins more than in the arteries. The arteries connected with the heart are frequently empty when the veins are full. Pennock and Gerhard found some serum in the pericardium in sixteen of their cases, or in nearly one half.

This may be considered as completing the enumeration of the pathological changes that belong to cholera. It is clear that all of them occur in the progress of the disease; they are consequences, therefore, and not causes. As consequences they are immediate, or more or less remote, one depending on another. But the one cause of the disease lies behind them all. It is probable that the morbific poison for a limited time circulates in the blood, before its symptomatic manifestation, and that single fact implies a change in this fluid, but not a change that is sensible to ordinary examination. Now we turn to the phenomena appreciable during life.

The first fact to be noticed in enumerating the symptoms of this disease is, that there is in the great majority of cases a diarrhœa, continuing for a certain number of hours, or days, or weeks, varying in severity in different cases, varying in different periods of an epidemic, and not to be distinguished from diarrhœa that does not lead to cholera. During the prevalence of this disease large numbers of people are affected with looseness of the bowels, and in a certain proportion of these the disorder culminates in cholera; in a large number it has no such termination. The diarrhœa, then, may or may not be considered a part of the phenomena of cholera. For our purposes at present we may say it is a part of the disease. The diarrhœa, then, that is to lead to cholera is either painless, or attended with colics, or with gurgling or movements of wind in the bowels. You are not to infer that it is always a painless diarrhœa; it is far from being so, colics are not an unfrequent attendant. The diarrhœa, however, is what is usually called "bilious;" the stools are ordinarily yellow, and usually retain this color until certain phenomena occur, that I will refer to in a moment. The number of discharges that precede the exhibition of the cholera symptoms will vary immensely in different persons; sometimes there will be no more than two or three, sometimes three or four or more a day for some weeks; at other times twenty daily, for a day or two, and still there is nothing characteristic in the discharges. At length a time comes when the diarrhœa, if it has been mild, becomes more violent. Then, or soon after that, the discharges are changed in appearance. From being yellow, or appearing to contain bile, they now become of an opaline appearance; they are called serous, or "rice-water" discharges; and soon after, or sometimes simultaneously with the occurrence of this more violent diarrhœa, there are cramps and vomiting. It is not easy to give a definition of disease, but the nearest we can approach to a definition of cholera is to say that it is characterized by purging, vomiting, and cramps, and by a prostration or collapse, which is only imperfectly accounted for by the evacuations which precede it. The purging is almost constant; the vomiting is not absolutely so, nor are the cramps; still, I do not know that a better definition can be made. Including the initiatory diarrhœa, the disease readily divides itself into four stages; the stage of simple diarrhœa; the stage of violent diarrhœa, with vomiting and cramps; the stage of col-

lapse; and finally, the period or stage of reaction, or typhoid stage. The second and third stages are not, however, distinctly separated, for while the symptoms of the second often exist for a certain time before those of the third occur, the purging, vomiting, and cramps, one or all of them, are usually prolonged far into the collapse. With reference to the duration of the bilious diarrhœa, I have here the facts, as they appeared in twelve cases (Pennock and Gerhard), and will read them in the order in which they are recorded. The cases occurred in the beginning of an epidemic, when the diarrhœa is likely to be shorter than at a later period. In the first case it continued two and a half hours—ten evacuations. In the second case, the diarrhœa lasted two days before the cholera was established. In the third case there was no diarrhœa until after the cramps began, and after this there were only four evacuations up to the period of collapse. In the next case, again, there were no evacuations until the cramps began; after this the diarrhœa was severe. In the next case it lasted ten hours; in the next, two hours; in the next, two hours; the next, thirty-eight hours; the next, thirty hours; in the next case, thirty six hours; in the next, two and a half days; and in the next, three weeks. Doctor Buell, in summing up the cases treated in one of the New York hospitals, in 1854, remarks, that of 469, the average duration of the diarrhœa was three days and six hours.

About the time the cramps and the vomiting occur, two other phenomena are noticed: the suspension of the urinary secretion, and a marked change in the voice. In these same cases to which I have just referred, suppression of the urine was noticed mostly at the time when the diarrhœa became violent; in eight, suppression occurred at this period; the urine was suppressed, and afterwards secreted in one case; there was no suppression of urine in three. And this, I suppose, may represent to you, pretty truthfully, the rate of frequency with which this symptom will be present, and the time when it is likely to be first noticed. With reference to the voice in these twelve cases, it became feeble from the first of the diarrhœa in one; it became feeble at the commencement of the collapse in eight; reduced to whisper in the deeper collapse in several; in one, it became almost extinct at the first of the collapse, and more distinct afterwards.

The vomiting is usually at the first merely the contents of the stomach, and frequently contains food; sometimes food that has remained undigested for many hours. Many times undigested food is found in the stomach after death, notwithstanding there has been prolonged vomiting. Soon, if it is persistent, the vomit will be like the discharges that occur in the violent purging, resembling rice-water, or a thin fluid of a greenish color; or sometimes of a dark green hue. It varies in its appearance, then, under different circumstances. It is often tasteless, while frequently it has a bitter taste. In two of the cases just referred to there was no vomiting during the whole progress of the affection. The time of its beginning in the other cases may be thus summed up: Began with the diarrhœa and cramps, second stage, in six cases; began one and two hours before the cramps in two cases; was one of the first symptoms, associated with diarrhœa and cramps, in two cases. In two instances, it was very copious, greatly exceeding the fluids that were swallowed and in one recorded as basinfuls of transparent fluid containing flocculi.

The cramps, as you have already learned, are associated with this more violent stage of the disease, beginning usually with or soon after the transition from the more simple stage of diarrhœa to what may be denominated choleraic. They begin in the inferior extremities in the greater number, and usually pretty soon pass to the whole body; in a few they are confined to the inferior extremities entirely; in a still smaller number they are present only in the legs—that is, in the part of the lower extremities below the knees. They have sometimes been known to begin in the toes and fingers together, and then spread over the whole body. Sometimes they become at once general. They usually continue during nearly the whole of the period of the serous diarrhœa; they frequently cease as the period of collapse advances. In a considerable number these cramps are light, and do not distress the patient seriously; in some cases they are terribly painful. The cramps, the sense of weakness, and a certain burning sensation which I shall refer to pretty soon, a burning thirst and sense of oppression at the epigastrium, may be regarded as the chief sources of suffering in persons who are in the collapse of this disease.

Now, then, what symptoms announce the collapse in cholera? It does not always begin with the aggravation of the diarrhœa; generally it follows this, giving an interval which varies only by hours. The collapse of cholera is chiefly indicated by these associated facts: a very marked feebleness of the pulse at the wrist, perhaps pulselessness, while the heart is beating with considerable force; coldness and lividness of the surface in parts or over the whole of the body; a sense of prostration and feebleness not inconsistent with considerable muscular strength. These appear to be its distinguishing features, while other symptoms, to be referred to soon, concur with them. The coldness usually begins on the nose and tongue; the feet, the hands, the legs, and the face become cold in succession; the arms and then the thighs, then the surface of the breast, then the forehead, then the chin, and then other parts as the disease advances. It is very common, however, to notice that certain portions of the body do not feel the influence that produces the cold; the surface of the abdomen is often warm to the hand, as is the back, probably from the protection of the bed. The lividness is noticed to occur in very nearly the same order. It is first noticed upon the lips, then upon the whole face, and under the nails of the toes and hands; then on the surface of the breast, and then over the whole body. With this coldness and lividness is commonly found a considerable degree of moisture upon the surface; a cold sweat, notwithstanding there are such vast discharges of the fluid matters of the body from the bowels; in a few, the surface is dry. The breath is frequently cold.

The pulse, during this period of collapse, is not so materially affected in frequency as you might suppose. It does sometimes reach one hundred and thirty in the minute, but frequently it is no higher than eighty-five or ninety; and it is noticeable that if the pulsations are frequent at the beginning of the collapse, they are apt to grow less frequent as the disease advances towards death.

The respiration is frequent, and occasionally there is a good deal of dyspnœa. I am not sure whether it was from this fact that the disease received the suffix *asphyxia*, or whether it was from the blueness that is upon the surface, or whether the word was used in its etymological significance, meaning pulselessness. The respiration is often nearly double the usual frequency. The normal respiration is, you will remember, from sixteen to twenty—perhaps eighteen—per minute. In half a dozen cases of collapse it was counted as follows: thirty-four, thirty-four, twenty-eight, twenty-eight, thirty-two, and thirty-eight. There is another fact relating to the respiration—it is scarcely at all abdomi-

nal, but almost entirely costal; or, as the phrase is, high.

Thirst is often a distressing symptom; this would seem natural, in view of the quantity of the fluid that is sometimes discharged from the body. The patient will drink almost without limit if permitted to do so; frequently he drinks and rejects the fluid at once; occasionally he drinks, if the drink be cold, and he will retain it. At the epigastrium there is a sense of great distress, many times; occasionally it is a burning sensation; sometimes it is simply a pain; sometimes it is a sensation of weight.

I should have remarked, perhaps, a little earlier, that while the whole body may be cold, while the arms particularly are cold, the patient very generally thrusts his arms out of the bed-clothes, because he feels a distressing sense of burning in them; he gets relief many times by the application of cold water. This burning sensation, while really the temperature is considerably below the normal standard for the part, though not a constant, is still a striking feature of the disease.

As this collapse advances, the expression of the face becomes cadaveric, and as the patient lies in bed he might be mistaken for a corpse in everything but that he is seen to breathe; the hands and the feet become shrivelled, particularly the palmar surface of the toes and fingers. The sense of prostration in many of these patients is extreme. In some of them the skin becomes insensible to pinching or pricking; in a larger number the sensation is preserved. Pennock and Gerhard noticed that the skin had lost its elasticity in the collapse. Pinching it up on the neck between the thumb and finger, they noted the rapidity with which it replaced itself upon the surface. They state that in every case of true cholera on thus pinching up the skin, it falls back to its natural position very slowly; and that in cases that imitate cholera, and are not true cholera, it retains its elasticity and falls back quickly to its place.

The intellect is usually unimpaired, and though the patient may have lost his voice, so that he can speak only in a whisper, or even feels a sense of exhaustion that induces him to make no reply when spoken too, yet in most of these cases the intellect is in full force. In some, however, as you have already learned, there is a good deal of congestion, and even serous effusion, within the cerebral cavity. In such cases there is often somnolence, from which it is difficult to arouse the patient; and in a small number actual coma. Some of the patients complain of tinnitus aurium. In a large proportion of cases, the abdomen in cholera is retracted; in a few instances there is a gaseous accumulation in the intestines that amounts to tympanites.

In deep collapse there is entire loss of pulse at the wrist; gradual weakening of the heart-beats, as perceived by the hand or ear applied over the precordial region; the features becoming entirely immovable; the eye partly closed; in a few the tracheal râles last sometimes for two or three hours before death comes; aphonia is absolute; vomiting and purging cease at this period, as a rule; indeed, may have ceased earlier—although in some the purging will continue to the very end; the cramps have ceased; the coldness of the face and arms is extreme; and in some there is delirium, that is, the mind wanders. Thus, then, we arrive at the close of this formidable array of symptoms. And now the question comes, what has produced all this commotion in the system?

But before I attempt to answer that question, I will return to one point that I left unfinished. Perhaps one of the most practical questions to be answered, is whether there is always a preliminary diarrhœa. That subject has been the occasion of some controversy. In describing the cholera as it was seen by himself in a cholera hospital in Brooklyn, Dr. Hutchinson enumerated six cases in which he thought he was authorized to say there was no preliminary diarrhœa. The following is a synopsis of the cases. In one the first symptoms were vomiting and purging, no cramps occurring during the disease; death occurred in sixty-six hours. In this case it is claimed there was no preliminary diarrhœa, because the vomiting and purging occurred at the same time. In the second, vomiting and purging were the first symptoms, and occurred together, the cramps occurring half an hour later; death took place twenty-seven hours after the initiatory symptoms. The stools were thin and watery. In the third case there were vomiting, purging, and cramps in the stomach only, these three features of the disease concurring; the patient recovered. In the fourth case there were vomiting and purging at five o'clock, and cramps at six o'clock; death occurred thirty-five hours afterwards. In the fifth case vomiting and purging commenced together at eight o'clock, and at nine the cramps; death occurring twenty-five hours afterwards. In the sixth case there were vomiting and purging at five o'clock, and cramps at six.

Now, Dr McLaughlin, of London, says of these cases two things. He says, in the first place, that the representation which patients bring with them—even the representations of relatives of patients—cannot be trusted under these circumstances; that while cholera is prevailing, persons who have had diarrhœa for days flatly deny the fact, and compel their companions to support them in the falsehood; and he thinks Dr. Hutchinson must have been thus misled. I can easily understand this. Dr. Trask, in his history of the epidemic of cholera in the poor-house at White Plains, says he early gave the inmates instructions to report to him the first appearance of diarrhœa; and he repeated that instruction: and yet, over and over again, he found that the persons affected by cholera had had diarrhœa a variable time, and not only did not report it, but forbade their friends reporting them. This is the history of almost all institutions of this kind. It is common in penitentiaries, that while the patients are instructed to send information on the first sign of diarrhœa, that they wait, having diarrhœa, many of them, until cholera is fairly declared. It might, then, well enough happen that Dr. Hutchinson did not get correct information on this point, however earnest and honest he might be in the endeavor. But further, Dr. McLaughlin says it was not fair to say there was no preliminary diarrhœa, because the vomiting and purging occurred, in one case, half an hour before the cramps, and in three others an hour before. He says these must be thrown ont of the class of cases in which it is claimed that preliminary diarrhœa does not occur. That is pretty close work. The diarrhœa occurred with the vomiting, and lasted half an hour, and one hour before the cramps occurred; and Dr. McLaughlin claims that the cramps constitute the cholera, or rather that the occurrence of cramps is the essential fact. Then he states in the New York *Medical Journal* for January, 1856, that he has made the most extensive inquiries in London; that the medical staff of seven of the largest hospitals there and thirty-six medical men of the "Popular Union" (where all cases have been carefully recorded for five years), certify that, in their observation, no instance of cholera has occurred without the preliminary diarrhœa. He further appeals to the Report of the Registrar-General for 1853, and to the *Medical Times* of that year; and from all these sources claims authority for saying that every case that occurred in all London at that time was preceded by diarrhœa. In another paper on the same subject he states

that he has collected the largest observations possible of the several epidemics that have visited London, and he has come to the same result—that there has been no instance in that city, in the range of his inquiries, that can be regarded as cholera, without a preliminary diarrhœa; and this statement embraces the year 1849. Dr. Hutchinson replies that his cases were carefully studied, honestly reported, and that a revision of them discloses no error.

I find in another book, and wholly unconnected with this controversy, in the deliberations of a learned society, this statement regarding the cholera of 1849, in London (it was part of a discussion in the Medical and Surgical, or Medico-Chirurgical Society): "Dr. Streeter called attention to the large number of cases of cholera which occurred without preliminary symptoms, in which the collapse occurred with scarcely any vomiting or purging, and which he believed to be always fatal."

Dr. Baly thought that the diarrhœa should be considered in a threefold light. First, there was a diarrhœa in which there were one or two evacuations before the collapse. Second, there was serous diarrhœa, with rice-water evacuations and occasional vomiting before the collapse. In both these instances, the diarrhœa was uncontrollable. But there was another class of cases in which there was a diarrhœa continuing for a variable time, usually several days, before the cramps and vomiting occurred; and this he regarded as a curable affection. The comment to be made upon this is, that while Dr. McLaughlin discovers that, in 1849, *all* the cases of cholera were preceded by diarrhœa, Dr. Streeter found that the cholera of that season was remarkable on account of the large number of cases unannounced by the preliminary symptoms. The modification which follows this part of the quotation may be claimed by Dr. McLaughlin as a support of his assertion; but of what practical avail is a diarrhœa of one or two stools, which, in the language of Dr. Baly, is uncontrollable? Besides, there is such a thing as *cholera sicca*, a cholera in which there is nothing which can be called a diarrhœa. Without giving too much credence to the reports from India, that men have died of cholera in five minutes from the instant of the attack, without any evacuations of any kind, we cannot discredit such a statement as that of Dr. Gull, when he tells us that in his own practice, "On *post-mortem* examination, the large intestines contained healthy fæces; while in the upper two-thirds of the small intestines, the mucous membrane presented the usual changes induced by the cholera process, and the rice-water effusion was abundant." Literally, then, in a very few cases, the collapse is not preceded by diarrhœa, and practically in a considerably larger proportion, but still in a small minority of all the cases.

Dr. Vaché, in reporting forty-six cases treated in the Centre Street Hospital, after it was re-opened in 1854, says, that forty had the preliminary diarrhœa, and six had not. There are physicians who compliment me by their attendance here to-day, who can assure us, from their own experience, that cases do occur in which what are regarded as the symptoms of full cholera are not preceded by a diarrhœa that can be considered as an admonition. If you look over any of the reports of epidemics, whether the cases are given in detail or tabulated, you will not fail to find the appropriate entries, or the blanks which show that diarrhœa did not precede the graver symptoms of cholera, at least in a small minority of the cases.

Dr. McLaughlin is confident that cramps occur in every case of cholera, and he cites the authority of the physicians of the six London hospitals, and that of the thirty-six "Poplar Union" physicians, to justify the statement that they are characteristic and essential. Now, I think, if you will examine any series of reported cases, you will not fail to discover, every now and then, an instance of fatal cholera in which no cramps have occurred. In the twelve cases I have frequently referred to, twice there were none from the beginning to the end; and once they were so slight as not to attract much attention. I do not think cramps are essential to the phenomena of cholera; they are so much to be expected that their absence is pretty certain to be noted. —Dr. McLaughlin may urge that the fingers and toes, at least, are stiff and clumsy from spasmodic action, in the cases reported free from cramps; but even if this claim is allowed, its importance would be theoretical rather than practical.

Reports of Hospitals.

BELLEVUE HOSPITAL.

PROF. F. H. HAMILTON'S CLINICS.

I. Fracture of Clavicle—Ligamentous Union. II. Partial Anchylosis of Right Elbow. III. Colles' Fracture. IV. Apoplexy. V. Perforating Wound of Abdomen; Recovery. VII. Refracture of Patella; etc., etc.

Reported by John Winslow, M.D.

Monday, 8th January, 1866.

Many old cases are brought up to exhibit their progress; a few are here given:

I. Fracture of Clavicle: Ligamentous Union.—Subject, an old woman. Fracture of outer end of middle third, of three weeks' standing. The inner fragment overrides the outer, one-half inch, and the two are now firmly united by a very short ligament. "I anticipate that the connexion will ultimately become bony, since, in the case of the clavicle, delay in the ossific deposit is not infrequent, while permanent ligamentous union is very rare. With union by ligament, the strength of the arm is unimpaired, except for raising weights above the shoulder. This was proved in a case I have before reported; and, again, in a recent case seen by my son at Fort Schuyler, where the ligament was an inch in length."

II. Partial Anchylosis of Right Elbow, in a young man, consequent upon a fracture of the olecranon process. Forearm nearly extended, with motion through ten degrees. Complete extension is prevented by the olecranon's no longer fitting into its humeral fossa. This is irremediable, but of slight importance. "The imperfect flexion is apparently due to contraction of the triceps, which I shall now attempt to overcome, even at the risk of refracturing the olecranon; for the arm is at present useless, and if this process is fractured, it will again unite by ligament."

The patient is etherized, and the limb slowly, but forcibly and completely, flexed,—guarding against luxation of the radius. During the first half of this flexion, there is only a gradual yielding of the contracted tissues; but towards its close the jerking movement indicates rupture, probably of fibrinous adhesions. This flexed position is to be maintained by bandages for a few days, and then followed by systematic motion. This case illustrates the fact that in this fracture the great danger is from anchylosis, compared with which that of ligamentous union is insignificant. Early and frequent passive motion is, therefore, essential,—the olecranon being meanwhile properly supported.

III. Colles' Fracture, in an old woman; reduced two weeks since, and treated by a single straight splint, on the palmar aspect, extending from the elbow to the metacarpo-phalangeal articulation; this carefully padded, most thickly just above the point of fracture, and not at all immediately below; the roller applied most tightly over the lower fragment. In removing the dressings the hand is held prone, in which position the fragments of bone retain their place without support. No deformity is apparent; but we have incipient anchylosis, and passive motion must be practised as often as every second day. Reduction of this fracture is, in general, easily effected without extension, by pressing the lower fragment forwards with one thumb or both.

In Colles' fracture the radius is, in most cases, broken almost transversely, from one-half to three-fourths of an inch above its articular surface. The radial side of the lower fragment is rotated backwards and across the ulnar side, which remains fixed by ligaments. Overlapping is rare, occurring perhaps once in ten or twelve cases.

Barton's fracture consists in a chipping off of the posterior lip of the lower end of the radius. "We often see cases of this fracture reported in the journals, but we have been unable to find a specimen in an American museum; and, so far as we can learn, there is but one well marked specimen in the world,—most of the cases reported under this name being, in fact, examples of Colles' fracture. The possibility of the occurrence of simple *luxation* of the wrist was denied by Dupuytren. I have seen one case which I believed was a simple dislocation; but this accident is certainly too infrequent to render it probable that it should interfere with your diagnosis. After an injury at the wrist, the practical question will almost always be: 'Is it a Colles' fracture or a sprain?'"

IV. Apoplexy.—"The feeble old man, whom you saw in ward eight, with compound fracture of the right tibia and fibula, was attacked last night with apoplexy. It has resulted in hemiplegia of the left side. There was no shock, physical or mental, to occasion the attack, and the vessel must have been ruptured under the ordinary pressure of the blood. It is the popular notion that robust and plethoric persons are especially liable to apoplexy; but my own experience is, that it is chiefly the invalid student and the infirm old man who are its subjects. It is apt to occur under conditions similar to those causing scorbutic petechiæ. Clearly, it is rather to weakness of the vascular coats than to increased force of the circulation that the accident should commonly be attributed."

V. Perforating Wound of Abdomen: Complete Recovery.—Parotitis from Morphia.—James M——, æt. 16, admitted last October in a state of collapse from a pistol-shot wound perforating the abdomen. No fæcal matter was ever discharged by the wounds. In consequence of the large doses of morphia employed to subdue the resulting peritonitis, he was attacked by inflammation of the parotid glands. He has now completely recovered, and is about to be discharged. Dr. Hamilton had known one other case where parotitis was clearly traceable to the effect of morphia.

VI. Refracture of Patella.—James T——, æt. 38, butcher, fractured left patella transversely some four years ago. It united by a short ligament, which was subsequently ruptured by a fall. The fragments are now separated three inches and one-half; and in such a case we need not hope for a second union of any value. The upper fragment is fixed in its position so that it cannot be moved, and the quadriceps extensor is useless,—the patient walking with a leather splint placed behind the knee.

The greatest caution should be exercised to avoid imprudent use of the limb for a considerable period after this fracture. But anchylosis is a frequent sequela, and should be equally guarded against. "It is my practice to begin, after about three or four weeks, slight passive motion, while carefully holding the feebly-united fragments in place.

"The most interesting feature of this case is, that the accident was followed by suppuration in the knee-joint, and yet there is a complete recovery without anchylosis. Under such conditions we anticipate, usually, death, loss of the limb, or at best anchylosis. But this fellow is a fighting character, and he seems to possess great tenacity of life. He is a perfect Barnum's Museum, a complete pathological collection. He recounts his battles and his wounds numerically. In battle No. 10 he obtained a strabismus externus and displacement of the pupil. In battle No. 17 he received a smashing in of the nasal bones. In battle No. 19 he was honored with a broken skull; in No. 20, with a fracture of the fourth and fifth meta arpal bones; in, No. 25, with a fracture of the patella; and in No. 30, with a re-fracture of the ligament, &c., &c."

VII. Amputation of Finger.—"The finger amputated Dec. 18th, under the most unfavorable conditions, is, you observe, nearly healed, and the stump is well shaped. We did not get union by first intention, this seldom or never occurring where inflamed tissues are incised and brought together. The patient, you remember, crushed his right index finger, Nov. 16th, the injury being accompanied with severe laceration of the whole finger, and immediate loss of the last phalanx. Phlegmonous inflammation supervened, with suppuration and necrosis. Amputation was made, by lateral flaps, at the metacarpo-phalangeal articulation. The head of the metacarpal bone was not removed; as, in the patient's enfeebled condition, a section of the bone would have exposed him to the dangers of osteomyelitis, while only slight additional deformity is the result of leaving it. The flaps were brought together by a bandage; sutures do not hold well in inflamed and engorged tissues like these, nor would adhesive plasters keep their places so well as the cloth roller. In amputations of fingers, I often employ the roller as a substitute for sutures and adhesive strips.

"We left the articular surface of the metacarpal bone intact, and the healing has progressed as rapidly as if it had been carefully removed. Within twenty-four hours after the exposure of a synovial membrane, its smooth polished surface usually disappears; and, under the microscope, very fine granulations are seen springing up. In two, or at furthest three, days, it has lost entirely its synovial appearance. I do not state that this rule has no exceptions, especially in large joints like the knee; but even here the secretion of synovia rarely continues longer than a week or two.

"Had the first phalanx, in this case, been sound, I should have preserved it; my experience being, that, in most cases, after such amputations, the patients have recovered some power of flexing the stump. This may depend either upon adhesions to bone or integument contracted during cicatrization by the tendon of the flexor profundus, or upon a thin falciform process, which, as Velpeau has observed, is generally sent off by this tendon to be inserted into the sides of the first phalanx. I have been able to show you two examples, during the present term, in which this power of flexion was recovered."

VIII. Chronic Rheumatic Arthritis.—"You saw, in the female ward, two cases of this affection seated in the ankle-joint,—both of long standing, and, upon admission, attended by much swelling and pain. They have

greatly improved, and one of the patients is about leaving the hospital. Some topical applications have been made, but I attach little importance to them as compared with the enforced and long continued rest, in a warm bed, to which, almost exclusively, I credit the cure."

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, MARCH 21, 1866.

DR. ALFRED C. POST, Vice-President, in the Chair.

DISCUSSION ON CHOLERA.

MR. T. MCELROY, by courtesy of the Academy, exhibited the model of a very unique surgical table, and also an invalid bed, after which

DR. HERZOG continued the discussion by referring to an epidemiological map prepared by the War Department of Bavaria, and which he had brought with him for the inspection of the Fellows of the Academy. This had been very carefully prepared from the most authentic sources, since a commission representing nearly every branch of science had been appointed with ample powers to investigate the laws which governed the epidemic there of 1854. Bavaria, he would remark in passing, represents a population of five millions, confined to comparatively a small area, and at the time presented peculiar opportunities for the study of the various causes at work in the progress of this scourge. The artist in the map represents what, for convenience sake, we shall style local epidemics by red lines, sporadic by green, and mere cholerine by those of a bluish tint. By this device the eye is very readily addressed, and our facts very easily marshalled into line. The commission to which I have alluded embraced, among others equally celebrated, such names as Liebig and Pettenkofer. They performed their duty ably, zealously, and thoroughly. They observed that the epidemic attacked some localities and avoided others, in obedience to other laws than those which govern portable diseases; that certain persons or certain vessels were not responsible for the introduction of this destroying power; or, in brief, that human travel had very little if anything to do with the question. They found that the direction of the winds or of the water-courses was a matter of no importance. Why, then, they inquired, as they narrowed down the results of their observations, are these choleraic visitations confined to certain streets, sides of streets, and even certain houses? This led to the search after specific causes, and we have the summary of their conclusions that a dry, solid, rocky, compact soil is uniformly exempt from the infection; while a wet, oozy, soft soil especially invites the invasion. The water underneath the surface of the ground is continually seeking different levels, and in its recession leaves the débris of various offending substances, which ferment and decompose in obedience to well known laws. The only requisite for the spread of the disease in a locality permeated by these underground streams, is the contact of choleraic stools.

The power of the excrements in the causation of the malady was well exemplified in the case of the laundresses employed about cholera hospitals; they were peculiarly susceptible to attack, and the attack almost invariably terminated in death.

DR. HUTCHISON, for the sake of giving the discussion a practical turn, wished to hear the experience of his brethren in the matter of treatment. He had acted his part in two epidemics. The one of 1849 he saw in the Mississippi Valley, and that of 1854 in this vicinity; and he had come to the conclusion that the preferable plan was to disturb the patient with as few medicines as possible. He had adopted the practice of free vomiting by stimulating emetics, such as common salt and mustard. These agents, he found, controlled the vomiting attendant upon the disease, after the production of their immediate therapeutical effect, much more certainly than creasote, hydrocyanic acid, or any of the salts of opium. They seemed to thoroughly clear the stomach of all offending substances; he remembered a case where the ejection of a piece of lemon-peel, dislodged from this organ by a mustard emetic, gave almost immediate relief. The vomiting of the disease he would set down as rather of a regurgitative character, and as indicative of what nature was striving to accomplish. He also aimed to procure bilious stools by the exhibition of calomel in one-grain doses every hour; in fact, he looked upon nature as an excellent indicator of the plan to be pursued, and had early learned to regard free vomiting and purging as very hopeful signs. For the cramps, he knew of no better plan than the forcible and continuous extension of the muscles—say, for instance, that if the arm were implicated, he would subdue them by putting the extensors upon the stretch. He thought also that some benefit in these cases had been derived by the use of anæsthetics and hot-air baths. He rather favored the method of introducing saline solutions into the circulation, notwithstanding the want of satisfactory results; he had adopted the method in five cases, all of which terminated fatally; none of these, however, were fair tests. Indeed there were many niceties involved in the question of failure; the mode of operating, the quantity, quality, and relation to each other of the materials, the specific gravity and temperature of the solution, etc. The formula he had employed in his earlier cases was as follows: Alcohol ʒ i., chlor. sodium ʒ iii., and water 1 pint. One or two pints were injected into the median basilar vein.

He afterwards employed the solution recommended by Dr. Gull, which was composed as follows: Chlor. sodium, 40 parts, chlor. potassium, 6 parts, phos. sod. 3 parts, and carb. sod. 40 parts. 140 grains were dissolved in 40 ounces of water, and injected at the temperature of 100°, 115°.

The solutions employed are intended to represent the fluids discharged from the blood, minus the organic materials. He desired to see this method of treatment more thoroughly ventilated.

DR. HERZOG'S experience coincided with Dr. Hutchison's; he had known of no recovery where this plan had been adopted. In reply to the question regarding the conclusions of the Bavarian Commission in the matter of disinfecting the evacuations, he would state that chloride of lime was an unreliable agent, and that the most satisfactory results had been derived from the use of the sulphate of copper; an instance or two being quoted where the epidemic was arrested in the residence of the patients immediately after the occurrence of the first case. The sulphates of iron and zinc had also been tried, and were highly extolled.

One part of sulphurous acid and ten parts of water was likewise a good combination. In this the soiled clothing was purified, and by it also the evacuations deprived of their noxious properties.

DR. HARRIS had verified in his hospital experience the observation of Pettenkofer, that almost all the first cases were rapid in progress and uniformly fatal; that these conditions prevailed until, to use the language of Dr. Blair, "the complement of mortality had been attain-

ed, when the type became milder and more amenable to treatment of any kind." He entertained the opinion that the disease was in some way portable, since, notwithstanding the maintenance of a cordon almost military in character, to prevent the communication of patients in buildings isolated some one hundred or two hundred yards apart, and the exercise of the utmost care in the disposal of the choleraic stools, the epidemic had spread from building to building. Here there was certainly no such thing as personal contact.

Dr. Herzog was reminded also that, according to the statements of the Commission, a local epidemic spent its force in twenty-five days. By the term local he meant certain districts, streets, or neighborhoods; and not, of course, a large aggregation of dwellings like New York city, or even towns of smaller dimensions.

Dr. Hamilton favored, upon the whole, the expectant plan of treatment, and his experience, like that of many present, embraced the observations of two epidemics; these he saw in the city of Buffalo. He had no faith whatever in the beneficial results of morphine or opium in the stage of collapse. He had also exhibited large doses of quinine without any favorable effect; he could recall two cases of recovery after thorough emesis, and would adduce as examples of the success attendant upon the administration of calomel in full doses, the salvation of many patients by a German practitioner not over scientific, but possessed of a good stock of strong common sense.

He would lay much stress upon a change of location as an element of success; he attributed quite a number of recoveries in his experience to the early adoption of this method.

Dr. Stiles recited his experience while assistant physician to the Kings County Hospital. He had there observed that many patients had died almost upon the instant that the limb was tied, as a necessary preliminary to the operation for introducing the saline solution. The medical staff then adopted friction in the direction of the venous circulation, with, as they conceived, happier results. He would warn against the danger of heat, which increased with the rise of the temperature; he had been led to this conclusion by certain experiments upon the lower animals. He would show the futility of the ice-bag plan of treatment, by merely reminding his hearers that there was a continual stream of warm blood coursing in the neighborhood of the spine which required some time to be cooled; and cooling the spine was claimed to be effected by the advocates of the method.

Dr. Foster gave his experience in the epidemic of 1832, at which time he was a practitioner in Scoharie county. He and his colleague had employed with manifest advantage large doses of calomel, larger perhaps than necessary, in conjunction with injections of warm starch, retained through the medium of towels applied to the anal orifice.

He was led to adopt this latter procedure by observing that the rice-water stools were very low in temperature.

The meeting then adjourned.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Conversational Meeting, March 14, 1866.

Case of Brain Abscess.

Dr. Andrew Nebinger related the following interesting case. He had been recently called upon to visit a young man aged 19, of scrofulous temperament, who had an *Otorrhœa* from infancy, which produced considerable deafness. He first saw him about twelve days ago, and found him suffering from a violent headache, with some sickness at the stomach—the latter only manifesting itself, however, when something would be introduced into the organ. There was no constant nausea. The pulse was somewhat quick and rather small, but no actual febrile disturbance could be detected. Knowing of the discharge from his ears, Dr. Nebinger inquired as to whether the usual amount and character of the discharge had continued since the accession of the condition then present. The mother of the patient informed him that it had ceased. On examination, he found the external ear of the left side almost completely closed with a deposit very similar to that found in the ears in scarlatina, and giving off a very offensive odor. The stench of the discharge had been extremely offensive all through; so much so indeed, that the boy had been looked upon as a kind of pest at the schools which he had attended, and had often to be detained at home on this account.

Severe headache was the chief complaint at this time. Under the impression that the actual disease was confined to the organ of hearing, means were employed to reinduce the discharge; but the headache continued, every means of alleviation employed being unavailable. Through the whole time his mind was perfectly clear, and there was no disturbance of intellect; he answered all questions propounded with perfect accuracy; vision was undisturbed; the sense of smell was good, and taste accurate.

On Thursday last (8th inst), the Doctor saw him in the afternoon. He did not complain of being any worse, indeed he said he thought he felt a little easier than usual. About ten o'clock that night, Dr. Nebinger was sent for, the messenger stating to him that his patient was in a dying condition. On arriving at the house, he found a great change had ensued since evening—the patient no longer recognised him. It appeared that he had attempted to get off the bed on which he was lying, and in the effort to do so, fell, and was unable to rise, which was the apparent commencement of his absence of consciousness. He was unable to reply to any questions put to him; and when the bed-clothing was moved from him, he would be seized with a chill, which seemed to be rather a disturbance of the nervous system than really a rigor.

At three o'clock next morning he died.

Autopsy.—In the middle lobe of the left cerebral hemisphere, Dr. Nebinger discovered an abscess containing two ounces and a half of laudable pus. The petrous portion of the temporal bone was roughened. The condition giving rise to the abscess had set up at that point, and extended itself, involving a large portion of the middle lobe of the cerebral hemisphere of that side. It had ruptured and partially emptied itself into the left ventricle.

In the right ventricle of the right hemisphere, a quantity of fluid was found, completely filling the cavity.

Dr. Nebinger narrated this case on account of there being during life no such disturbance of intellect as would be naturally anticipated where there was such an extensive amount of disease, and the absence of such abnormal revelations as might be inferred would be present during the progress of such an abscess.

Legalized Dissection in Pennsylvania.—A bill "to promote medical science by furnishing subjects for dissection from the Alms-House," has been presented to the Pennsylvania Legislature for its adoption.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, JAN. 10, 1866.

DR. GURDON BUCK, President, in the Chair.

(*Continued from page 22.*)

CANCEROUS DISEASE OF FEMUR.

DR. VOSS presented a second specimen, a malignant tumor of the thigh, which he removed from a young man nineteen years of age, who died last Sunday. He saw the patient for the first time on New Year's day. He was of slender build, of very rapid growth, and had enjoyed good health until four months ago, when he first began to complain of pain in the upper part of his thigh. This pain was severe enough to prevent him following his vocation for a period of six weeks previous to the time when he first placed himself under regular treatment. He was at first treated by the surgeon who saw him, for hip disease, and the elastic extension was employed. "I saw him first on the first of January, and satisfied myself very soon, without the use of chloroform, that the hip-joint was free. He was very much emaciated with a very high fever, and a small pulse of about 130 beats a minute. There was a slight œdema of the left lower extremity, with a marked fulness immediately below the left trochanter. I examined his spine and his abdomen, and could discover no disease in those localities. There was no difference between the gluteal regions. He could not stand upon the affected limb, but could move it slowly, which motion occasioned pain in his abdomen. On moving the limb I felt immediately below the trochanter a slight crackling sound; it was neither crepitation nor fluctuation, but resembled more nearly the sensation produced over the inflamed vagina of a tendon. After pressing the œdema away, I thought I could feel a place where it was softer, where I could make an easier impression upon the part by my finger; and in the absence of any decided limits to the swelling, indicating the existence of a tumor, I thought it might be caused by a deep-seated inflammation. I accordingly made an incision at this point, but nothing but blood escaped. On introducing my finger into the opening thus made, I encountered a soft mass of substance which felt like coagulated blood, with here and there some nodules; and finally without effort touched the bone, which was bare, and the surface of which easily scaled off by the scraping of my finger-nail. I had then no hesitation in declaring what the nature of the disease was, and at once closed the wound, applying over it a piece of lint soaked in the persulphate of iron, and left the man, telling his parents what the end must necessarily be. The patient died eight days after, the wound having apparently undergone no change whatever in its appearance.

The autopsical examination was, on account of attending circumstances, very incomplete, as I only succeeded after a great deal of trouble in securing the thigh bone, not being permitted to examine into the condition of the other organs. During life the bone remained unbroken, but I suppose the fracture here seen was occasioned by handling the corpse. The tumor seems situated on the inner and posterior side of the femur, and seems to have originated in the medullary canal. On microscopical examination, the diseased mass is found made up simply of a small amount of stroma, and a disproportionate amount of cells, some of which have two, three, four, or five nuclei. One part of the external aspect of the bony shell which surrounds the disease is perforated immediately below the trochanter, the edges of which opening are everted. The tumor was covered partly by the quadratus femoris and the gluteus maximus muscle. The disease is that which is known as fungus hematodes of the medullary canal. The results of the microscopical examination appear to correspond with the clinical history of the case, the large amount of cells accounting for the rapid growth of the tumor.

MALFORMATION OF THORACIC ORGANS.

DR. LEWIS SMITH exhibited a specimen of malformation of the thoracic organs taken from an infant in the Nursery and Child's Hospital, who died at the age of five hours. The mother was attended in her confinement by the house physician, and from him the history of the case was obtained. The woman stated that she was formerly married, and was the mother of two healthy children, one fourteen and the other sixteen years of age. Her husband died three or four years ago, and of course this last child of hers was illegitimate. She believed that the malformation was induced by grief. The infant at birth cried vigorously, but soon after became livid, and gradually sank and died.

On making the post-mortem examination, the abdominal viscera were found healthy. The lungs were in a state of atelectasis. The heart was about the normal size, but the right side was larger than usual; the left, smaller. On opening the pulmonary artery, its valves were found to be perfect, and were somewhat larger than was natural. The pulmonary artery was also somewhat enlarged; and on tracing it, I found that beyond the point where it divides into the right and left branch it continued as the aorta. The right auricle was enlarged, and the cavæ, as usual, entered it. The septum between the auricles, and also between the ventricles, was perfect; the valvular opening between the auricles being closed by a thick membrane. On the left side of the heart the ventricle was found in a rudimentary state, having only the capacity for a small bean, and was lined by a dense fibrous membrane. There were only two aortic valves, instead of three. The ductus arteriosus was absent, and the aorta was pervious, but very small. This latter vessel, as far as was possible, supplied the superior extremity and right side of the head. The pulmonary veins were found to enter the left auricle. This specimen of heart, then, was one of only two well formed cavities—the right auricle and ventricle—instead of four cavities; the left side of the heart being only in a rudimentary state. It is evident that the circulation must have been abnormal before as well as after birth.

In conclusion, he remarked that two specimens similar to the foregoing had been presented to the Society; one by Dr. Dalton in 1855, and one by Dr. Clark in 1856. The first case lived but twenty-four hours; the second, six days.

ST. VINCENT'S HOSPITAL.—According to the sixteenth Annual Report of this institution, which is under the charge of the Sisters of Charity, there has been a gradual increase in the number of patients yearly admitted. In 1850, there were but 308 treated, while during 1865, 900 were provided for, and of these 376 were cured, 283 improved, 51 were no better, 104 died, and 87 remained. Fifty-six of the deaths were from phthisis, for the treatment of which 199 had been admitted. The excess of the expenditures over the receipts, which were $23,065.49, amount to $2,574.83. The medical Board consists of the following gentlemen—Professor Wm. H. Van Buren, President, and Consulting Surgeon; James O'Rorke, M.D., Patrick J. Clarke, M.D., and Joseph A. Kerrigan, M.D., Visiting Physicians; and Julius S. Thebaud, M.D., J. W. S. Gouley, M.D. and Luther Voss, M.D., Visiting Surgeons; O. J. Ward, M.D., Resident Physician and Surgeon.

THE MEDICAL RECORD.

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FOREIGN AGENCIES.

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New York, April 2, 1866.

THE ISLAND HOSPITAL.

THE Commissioners of Public Charities and Correction have recently taken a very important step in making separate institutions of the Bellevue and Island Hospitals. The change in the management of the latter institution, which has been made by the appointment of a separate staff, is well calculated to be productive of much good to both hospitals. The attending staff of Bellevue will now be enabled to perform its onerous duties more satisfactorily, and the Island Hospital will be rescued from that neglect which, under the old system of management, it has so long suffered from.

Ever since its foundation, the Island Hospital has been most unfortunate in many respects, and not the least so in reference to the matter of medical attendance upon its wards. Having been considered a part of Bellevue, it has heretofore been compelled to rely wholly upon such occasional visitations from the staff of that hospital as the opportunity and time of the respective members of the same would allow. The distance from the city, the want of facilities for ready transportation, and the amount of time which such visitations as could be made required, naturally enough prevented many of the visiting staff from giving that attention to the care of patients which their voluntarily assumed duties required of them.

The consequence of all this was, that almost the entire charge of the sick had to be left to the internes. Although the members of the house staff made every effort to meet this extra demand upon their time and energies, they fell far short of the proper performance of the duties thus unwillingly thrust upon them. Competent for the performance of the ordinary duties of their position, they, despite their good intentions, necessarily lacked that amount of skill and judgment which is possessed by older and more experienced men.

The practice of confiding the care of cases to the house staff became after a while, and of necessity, so generally practised, that it was not unfrequently the case that a visit from the attending physician or surgeon would not be made for many days together. This dangerous habit which the visiting staff had grown into, although with no design to shirk the performance of a duty, soon began to tell seriously upon the interests of the institutions, and to exert a very demoralizing influence upon the younger men.

It soon became evident that either the visiting staff must be increased in numbers, and the respective terms of service shortened, or the majority of the patients be continually subjected to inattention. Finally, as the result of considerable discussion, the Commissioners concluded to adopt the expedient, not only of increasing the number of the attending staff, but also of forming two distinct hospitals.

We have no hesitation in saying that, by the wise course thus taken by the Commissioners, the Island Hospital, as a distinct institution, will be incalculably benefited. Not only can the patients be better cared for, but the immense amount of valuable material which has literally been allowed to run to waste, can now be made available for careful study and observation.

The new staff is composed of sixteen members, six of whom are not members of the original Bellevue staff. The view which has evidently been had in the appointment of these latter, seems to look towards the establishment, at no distant day, of separate wards for the treatment of special diseases. The names of BUMSTEAD, NOYES, LEWIS SMITH, and ECHEVERRIA, certainly give color to such a surmise. This fact, too, taken in connexion with a bill which is now before the Legislature asking for the establishment of a distinct department for the treatment of syphilitic disease, is at least a very significant one. Whether, after all, anything may really come of it, we are of course at present unable to say. The circumstances themselves are, however, worthy at least of mention.

In conclusion, we would respectfully draw the attention of the Commissioners and the Medical Board to the urgent necessity for increasing the number of members of the house staff on the Island. There has been too much expected of these gentlemen heretofore, and they should at least have the same chance as their confrères at Bellevue.

THE Metropolitan Board of Health, by its prompt and energetic action in all matters coming under its jurisdiction, has already succeeded in winning the confidence of the community as to its efficiency. Every one of its many departments is now in working trim, and everything moves on harmoniously towards the accomplishment of its purposes. The sanitary inspectors have had their respective districts assigned them, and are busily engaged in making their inspections, and reporting the results of their observations. The police squads are ever ready to render their aid on all occasions, and have by their seizure of vast quantities of diseased meat and the abatement of hundreds of nuisances, already given satisfactory evidence of their

fitness for the task assigned them. The streets are being cleaned; contractors are held to the strictest accountability; and the citizens of New York and vicinity are made to believe that they have a right to expect something more of the Commissioners than empty promises.

In announcing the close of the winter term of Lectures at our different medical schools, we are happy to state that the attendance of students has been unusually large. Not only have the colleges in this city had full classes, but other similar institutions throughout the country have been likewise favored. The accession to our ranks will, consequently, be very considerable. Although our profession may be in some respects justly considered a crowded one, we will have always room for working men. Let us hope that the majority of the freshly-graduated will belong to this class. A goodly number have certainly started well by entering the various hospitals as internes.

Reviews.

LECTURES ON EPILEPSY, PAIN, PARALYSIS, AND CERTAIN OTHER DISORDERS OF THE NERVOUS SYSTEM, by CHARLES BLAND RADCLIFFE, M.D., Fellow of the Royal College of Physicians of London; Physician to the Westminster Hospital, and to the National Hospital for the Paralysed and Epileptic, etc. Philadelphia: Lindsay & Blakiston, 1866. 12mo. pp. 280.

It requires no ordinary amount of talent for observation and research to work successfully in such a field as the author of this volume has chosen for himself; and we deem ourselves safe in saying, from the manner in which he has treated his subject, that he can justly lay claim to the possession of the necessary qualifications. As the result of labors which have been prosecuted with a praiseworthy endeavor for the past dozen years to elucidate some of the many abstruse points connected with one of the most important branches of study, he has been able to offer to the profession a mass of facts which are of the utmost importance to the general practitioner. A firm believer in the existence of animal electricity, he starts upon the foundations already laid by Matteucci and Du Bois-Reymond, and after the performance of a number of experiments, he builds up a seemingly substantial set of theories concerning muscular motion on the one hand, and nervous power on the other, and draws therefrom some very interesting and valuable deductions with reference to the treatment of epilepsy, pain, paralysis, etc. In reference to the phenomena of muscular motion and nervous force, he makes the following broad assertions, of which he attempts to prove the correctness beyond a doubt, by a very ingenious train of argument:—

"That there are unmistakable signs of natural electricity in living nerve and muscle during a state of rest. That the natural electricity which is present in living nerve and muscle during the state of rest, is in the statical, and not in the current condition. That living muscle, when left to itself, is kept in the state of relaxation by the statical action of its natural electricity. That an electrical discharge analogous to that of the torpedo, is developed in the neighborhood of the nerve or muscle during a state of action. That a nerve or muscle is for the moment deprived of its natural electricity whenever it is thrown into the state of action by the shock of a coil machine, or by any other artificial means. That the action of a motor nerve in producing muscular contraction is one which may deprive the muscle of its natural electricity; for it may be supposed that the muscular fibres lie near enough to the nerve fibres to be within the range of the electrical discharge (analogous to that of the torpedo), which is developed in the neighborhood of the nerve during the time of nervous action; and that the muscular fibres are deprived of their natural electricity by the shock of this discharge, in precisely the same way as that in which they are so deprived by the shock of the current of the coil machine. That muscle, deprived of its natural electricity, passes into the state of contraction, because muscle so deprived is left free to yield to the action of the attractive force which is inherent in the physical constitution of the muscular molecules."

He also maintains that ordinary muscular contraction is not continuous, for the reason that the electrical condition of the living tissue is such, that immediately after the contraction occasioned by the loss of electricity, a state of relaxation is restored by the recovery of electricity. When, however, the electrical condition is lost, a permanent and continued contraction takes place; a good example of which condition is afforded in rigor mortis. He does not believe that a vital property of irritability has to do with the action of a motor nerve, or that a vital property of irritability has anything to do in causing contraction of the muscle. Further on he assumes that there is no essential difference between the action which issues in sensation and the action which issues in muscular contractions.

Before proceeding to elaborate his particular views with reference to this point, we will allude to the existence of two different electrical conditions which he affirms are possessed respectively by the longitudinal and transverse surfaces of each muscle and nerve when in a state of rest. These two electrical states are of course antagonistic; the longitudinal surface of the fibres being electrified positively, and the transverse negatively. In a state of rest these two conditions balance each other. Thus much being stated, we are the better prepared to understand the following statements by the author:— "(1) That the 'impression' which issues in sensation, reverses the electrical relations of the exterior and interior of the nerve fibres in the parts acted upon; (2) that this reversal leads to a state of action in the sentient nerve; (3) that this state of action implies the development in and near the nerve of an electrical discharge analogous to that of the torpedo; and (4) that this electrical discharge gives rise to sensation, if certain ganglionic cells of the sensorium happen to be near enough to be exposed to the shock;" the only difference between the production of sensation and motion being in this, that in one instance the electrical discharge tells upon the sensorial ganglionic cells, and in the other upon the muscular fibres.

After going through with the physiological inquiries pertaining to the subject, he prepares the way for the consideration of several questions in pathology connected with convulsions, tremor, pain, and paralysis. By the careful examination into the condition of the functions of respiration, circulation, and innervation in each of these disorders, he proves each disease to be the result of a depressed, instead of exalted degree of vitality; this depression in the vitality serving to disturb the electrical relations between the exterior and interior of certain nerve fibres. The remarks upon the treatment of these different diseases are exceedingly valuable, and we regret that our space will not allow us to present them in detail. The general plan pursued by the author is the tonic and stimulating one, and among other remedies he favors the free use of fats, and the administration of bromide of potassium,

phosphorus, and occasionally of opium and alcoholic stimulants. The reason given for preferring above others the particular articles mentioned, are such as to convince every one of their soundness, whether he is willing to adopt the author's theories or not.

The volume is a handsome one, and has scattered throughout it several well executed engravings.

STIMULANTS AND NARCOTICS: their Mutual Relations; with Special Researches on the Action of Alcohol, Ether, and Chloroform on the Vital Organism. By FRANCIS E. ANSTIE, M.D., M.R.C.P., Assistant Physician to Westminster Hospital, Lecturer on Materia Medica and Therapeutics to the School, and formerly Lecturer on Toxicology. Philadelphia: Lindsay & Blakiston, 1865. 8vo. pp. 414.

OF late years there has been a great deal of looseness of expression in connexion with the effects which different medicines produce upon the organism, and the inevitable result of this has been to bring the science of therapeutics into great disrepute. Arbitrary classifications of the effects of drugs have been made; and partly for the sake of convenience of reference, and partly for the reason that few have had the time or patience to prove the fallacies upon which these bases of classification rest, they have been accepted and endorsed by medical men. The author of the volume before us chooses to travel out of this beaten track, and gives us, as the result of very many careful observations, a very instructive, interesting, and valuable treatise upon one of the most important departments of therapeutics —viz. on the relations between stimulants and narcotics. Stimulation, according to his view, not merely includes the impulse to act, but a supply of the materials which are necessary for action; that is to say, the physiological activity of a given organ is not only increased, but its tissue at the same time actually receives nourishment. In the latter sense, stimulants are understood as constituting, so to speak, actual food for the body which is in the condition to require them; and hence, arguing from such premises, he ranks nutritious food first under the head of true stimulants. He draws a very distinct line between the stimulation proper—which is induced by small doses of such remedies as opium, alcohol, and chloroform—and the depressing influences which attend the administration of large doses of these medicines. In small doses, these remedies—usually known under the name of narcotics—really possess the power of stimulation; and he proves, in a very logical way, that this property of stimulation is the one which apparently produces the narcotic effect, by the increased tone which it gives to the exhausted system. When, through misconception of the true indications of a given case, the remedies are pushed to narcotism, the effect contrary to that of stimulation is brought about; the system, so to speak, is overwhelmed by a poison, and instead of healthful sleep, a comatose condition is induced, the irritation or pain being only displaced by another pathological condition. The argument in favor of the position which he assumes is well and clearly presented, and deserves a degree of attention from the reader which is only commensurate with the amount of thought and careful study bestowed upon it by the author. His researches in reference to alcohol, chloroform, and ether, are especially valuable to the practitioner. The work is a very readable and interesting one; the numerous well recorded cases that are found scattered throughout its pages tend to fix in the mind of the reader very many important points, which might otherwise be lost sight of.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE, designed for the use of Practitioners and Students of Medicine, by AUSTIN FLINT, M.D., Prof. of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, and in the Long Island College Hospital, Fellow of the New York Academy of Medicine, etc. Philadelphia: Henry C. Lea, 1866.

THE object of the author in writing such a work as that now before us, has been to present such a digest of the Principles and Practice of Medicine as should be serviceable alike to the student and the practitioner. In following out such a plan Dr. Flint has succeeded most admirably, and gives to his readers a work that is not only very readable, interesting, and concise, but in every respect calculated to meet the requirements of professional men of every class. The student has presented to him in the plainest possible manner the symptoms of disease, the principles which should guide him in its treatment, and the difficulties which have to be surmounted in order to arrive at a correct diagnosis. The practitioner, besides having such aids, has offered to him the conclusion which the experience of the professor has enabled him to arrive at in reference to the relative merits of different therapeutical agents, and different methods of treatment.

The work is divided into two principal parts. The first part is made up of ten chapters, and treats of general pathology, and embraces the consideration of anatomical changes in the solid and fluid parts of the body. Part II., which comprises fully nine-tenths of the whole volume, is divided into six sections, which are severally devoted to the diseases of the following systems:—the respiratory, the circulatory, the digestive, the nervous, the genito-urinary, and fevers and general diseases. Without wishing to detract anything from the merits of other parts of the work, we would specially commend to careful study that portion which treats of the diseases of the respiratory and circulatory systems.

This new work, as a whole, will add not a little to the well earned reputation of Prof. Flint as a medical writer and teacher. The number of years in which he has been engaged in the active duties of his profession, both in public and private life, have given him an amount of experience which has eminently fitted him for the production of a work which must necessarily extend over such a wide range of subjects. We cannot see how it can fail to meet with universal favor.

We are sorry to notice, however, the indifferent style in which the work is got up, the paper being thin and of bad quality, and the type old-fashioned and poor. This, considering the great reputation of the house from which the publication emanates, is not only surprising but inexplicable. It is to be hoped that when a new edition is called for, which we have good reason to suppose will be very soon, we shall see it in a more becoming dress.

THE PHYSIOLOGY OF MAN, designed to represent the existing state of Physiological Science, as applied to the Functions of the Human Body, by AUSTIN FLINT, Jr., M.D., Professor of Physiology and Microscopy in the Bellevue Hospital Medical College, N. Y., and in the Long Island College Hospital, Fellow of the New York Academy of Medicine, Microscopist to Bellevue Hospital.—*Introduction:* The Blood; Circulation; Respiration. New York; D. Appleton & Co., 443 and 445 Broadway. 1866.

THE volume before us is the first of four which are promised, the whole to make an elaborate treatise on "pure human physiology." The introduction is devoted to the consideration of physiological chemistry,

and though the subject is not exhaustively treated of, is sufficiently complete in the study of the relations of the different proximate principles to nutrition, to be interesting and instructive.

The first four chapters are given to the study of the blood, its physical, chemical, microscopical characters being fully dwelt upon, as well as the different methods of analysing this fluid. We pass over this part of the work without any intention to enter into a lengthy discussion concerning parts which have but little interest to any but the physiological chemist.

The fourth chapter commences the second division of the work, which especially commends itself to the careful perusal of all. All the important phenomena connected with this great function are elaborately treated of, and all the conclusions which are arrived at are thoroughly substantiated by numerous interesting observations and experiments. That which refers to the action of the heart is so interesting and instructive that we cannot resist the temptation of giving to our readers some of the many points which seem to be established by the author, not only as the results of experiments of others, but by not a few which have been carefully performed by himself. After establishing the fact that the point of the heart, during contraction, is lifted by virtue of the sudden distension of the great vessels at its base, and that the organ at the same time twists its point and becomes hard, he asserts that the ventricles, during contraction, instead of elongating really *shorten* themselves. The elongation, which is spoken of by many observers as taking place during the systole, he conclusively proves is only apparent, and that such an appearance is produced only when the heart is examined in situ, and when its apex is consequently protruded by the distension of the great vessels at the base of the organ. Two of the experiments performed in support of this view, we give in the author's own words:

"A large Newfoundland pup, about nine months old, was poisoned with woorari, artificial respiration was kept up, and the heart exposed. After showing the protrusion of the point and the apparent elongation while in the chest, the organ was rapidly removed, placed upon a table, and confined by two long needles passed through the base, pinning it to the wood. It contracted for one or two minutes, and at each systole the ventricles were manifestly shortened. The point was then placed against an upright, and it receded with each systole about an eighth of an inch." In another experiment, performed some time after, the heart of a medium-sized dog was examined, first in situ, "by pinning it with two needles to a thin board, passed under the organ. The presence of these needles did not seem to interfere with the heart's action, and at each ventricular systole the point evidently approached the base To render this absolutely certain a knife was fixed in the wood, at right angles to, and touching the point during the diastole, and a small silver tube was introduced through the walls into the left ventricle. At each contraction, a jet of blood spurted out through the tube, and the point of the heart receded from the knife about an eighth of an inch."

In accordance with the results obtained by Marey, the action of the heart is divided into ten equal parts, three distinct periods, which occur in the following order:—1. The auricular systole, which occupies two-tenths of the heart's action; 2. the ventricular systole, which occupies four-tenths; and 3, the diastole, which also occupies four-tenths.

In the description of the functions of the aortic and pulmonic valves, we find that the following important statement is made, with reference to a new office which the latter valve is supposed by the author to perform.

"The action of the semilunar valves can be seen by cutting away a portion of the ventricles in the heart of a large animal, securing the nozzle of a double syringe in the aorta and pulmonary artery, and forcing water into the vessels. In performing this experiment, it will be noticed that while the aortic semilunar valves oppose the passage of the liquid so effectually that the aorta may be ruptured before the valves will give way, a considerable degree of insufficiency exists under a high pressure, at the orifice of the pulmonary artery. There is at this orifice a safety valve function, as important as that ascribed by King to the tricuspid valve. It is evident that the slight insufficiency at the pulmonic orifice may be even more directly important in protecting the lungs than the insufficiency of the tricuspid valve. The difference in the sufficiency of the semilunar valves, on the two sides, is fully as marked as between the auriculo-ventricular valves, and it is surprising that, since the observations of King, this fact has not attracted the attention of physiologists."

The heart sounds next claim an extended examination, and without detailing the experiments which are related as bearing upon the various causes which combine to produce them, we will merely state the conclusions which are arrived at. They are, in brief, these: The first sound is made up of, first, a sudden closure of the auriculo-ventricular valves; second, the contraction of the muscular tissue of the organ; and third, the impulsion due to the shock of the organ against the walls of the thorax. The second sound is merely produced by the sudden closure of the aortic and pulmonary semilunar valves.

The rhythmical contractions of the heart are physiologically explained in this way:—The heart is endowed with an inherent property, called irritability, which is preserved by the blood in contact with the lining membrane, as well as by the blood going to the substance of the muscle, while the passage of the blood through the organ is the natural stimulus to such an irritation, "and may be said to be *the cause of its regular pulsations.*"

After some remarks upon the influence of the nervous system on the heart, he gives us a well digested summary of certain causes of arrest of the action of the heart, which we can only briefly refer to in passing. The first cause is that of hæmorrhage; the second, that of mechanical injury; the third, that of distension; and the fourth, that of powerful impressions upon the pneumogastric.

Following these two exceedingly interesting and instructive chapters on the physiology of the heart, the arterial, venous, and capillary systems are severally taken up and very elaborately and intelligently discussed.

The remaining portion of the work, on *Respiration*, although it does not come up to that standard of high excellence which we are disposed to claim for that part which we have just gone over, is sufficiently worked up to make it very practical to the practitioner and very attractive to the student.

In conclusion we would take occasion to say that the work, besides being a valuable addition to the literature of the subject, is well written, well illustrated, and elegantly printed.

Quarantine Matters.—A bill "ceding to the United States jurisdiction over West Bank and Old Orchard Shoal, in the Lower Bay of New York, for quarantine purposes," passed the Legislature on the 13th ult.

Progress of Medical Science.

Hydatid Cyst of Pelvis—Retention of Urine—Removal of three quarts of Hydatids.—Mr. Thomas Bryant, F.R.C.S., has recently detailed in the *Lancet*, a very interesting case of retention of the urine depending upon the development of a large hydatid cyst in the pelvis. The patient was 50 years of age, a single man of steady habits, who was first afflicted with retention of urine in 1851, the attack at the time lasting for a week. During all this period repeated attempts to pass a catheter failed, when finally the urine was naturally voided. He had an immunity from a second attack until seven years after, when the same difficulty in catheterization was experienced, and the same satisfactory result in time ensued. Many years elapsed without any recurrence of this trouble, and it was not until Nov. 1 that he was attacked a third time. With the exception of some months previous to this last attack, when he voided only small quantities at a time, he was able to pass the usual amount of urine in a good stream. For several years he suffered from obstinate constipation, requiring the frequent use of cathartic medicines. When Mr. Bryant saw him on Nov. 5, 1865, he had passed only a few drops of urine for five days, and he had also suffered from constipation for a long time.

On examining his abdomen, it was found very tense from the presence of a cystic tumor which evidently had its origin in the pelvis, and extended nearly to the scrobiculus cordis. This tumor was very hard, fluctuating, and smooth on its surface. "On the right side it projected oddly forward, and on the left it passed up higher in the abdomen than on the right." The external aspect of the tumor gave rise to the suspicion that it was something more than a distended bladder, and this was confirmed by the circumstances which attended the different attacks of retention. Examining the pelvis through the rectum, it was found completely blocked up by a hard swelling occupying seemingly its entire cavity, and so firm that no impression could be made upon it. An attempt was made to pass a catheter and failed, the end of the instrument turning towards the left side. This being the case, it was determined to puncture the bladder through the rectum, and this operation was performed on the following day. The man was placed in the position for lithotomy. "The puncture was then made with a trocar and canula through the rectum in the presumed direction of the bladder, but nothing came. A second puncture was then made backwards towards the sacrum, as it seemed probable that the tumor had pressed the bladder backwards, but with no better success; a little clear fluid was drawn off with fine membrane. A third puncture was then made forwards with a similar result; and under these circumstances it was at once determined to cut down on the pelvic tumor through the perinæum. In doing so, the incision was at first guided by the index-finger of the left hand, and, having opened this canal, incisions were made guided by the index-finger of the left hand backwards towards the tense tumor, which was felt deeply seated." The contents of the growth were then evacuated, when it was found to be hydatid. In order to allow a free passage of the matter contained in the cyst, the perinæum was laid open backwards into the rectum. A free incision was then made into the cyst itself, when about three quarts of hydatid cysts were evacuated. The cyst was then washed out. The bladder was found to occupy the left iliac fossa, and after another attempt at catheterization, it was finally crowded to some extent into the pelvic cavity, and then with some considerable difficulty punctured by the trocar and canula, upwards of a quart of dark-colored urine being drawn off. "An elastic catheter was passed through the canula into the bladder, and both were fastened in position. The patient went on very well for three days, when he began to fail, and died at the end of the seventh day. The only result of the autopsy that is referred to is the finding of two diseased kidneys.

"It is tolerably clear," says he, "that the hydatid cyst had pushed the bladder well up into the left iliac fossa, elevating the whole viscus and prostate from the pelvis, thus stretching the urethra and displacing it completely to the left side. It is also clear that for many years the bladder had never been, as a rule, well filled; and for many months it had never held more than an ounce of urine. Under such circumstances, it seems probable that in the expansion of the bladder so placed against the bone in the iliac fossa, the urethra would be bent sideways at an angle towards the centre, and thus a retention would be produced. The natural relief, also, seemed capable of a somewhat similar explanation; for let the distended bladder become still further distended, the pressure upon it from the cyst would be comparatively greater, and as a result the bladder would be pressed still further upwards, and the urethra, again made straight by stretching the natural channel, would thus be again reöpened and relief secured.

"Respecting the present seizure, it is to be noticed that it had been induced by the same cause that had brought on the two former—compulsory retention—and that the passage of a catheter into the bladder was likewise impossible. It was accompanied neither with any great constitutional disturbance nor with much local distress, although it was tolerably clear that both the retention of urine and constipation were produced by the same cause, mechanical obstruction. The peculiar aspect of the abdominal tumor, its prominent projection on one side, and its unequal enlargement, were points of striking interest, and appeared to indicate the presence of something more than an enlarged bladder; although a distended bladder is not always symmetrical, and the history of the case went to prove that there had been a gradual encroachment of a pelvic tumor upon the organ. This opinion was also strengthened by the statement of the patient, which was extracted from him during his treatment—that he had never passed more than two tablespoonfuls of urine at one time for a great many months, and often felt as though the lower part of the bowel was paralysed."

Coffee.—Baron Liebig's compound method for making coffee is thus given by the *Lancet*:—With three-fourths of the coffee to be employed, after being ground, the water is made to boil for ten or fifteen minutes. The one quarter of the coffee which has been kept back is then flung in, and the vessel immediately withdrawn from the fire, covered over, and allowed to stand for five or six minutes. In order that the powder on the surface may fall to the bottom, it is stirred round; the deposit takes place, and the coffee poured off is ready for use. In order to separate the dregs more completely, the coffee may be passed through a clean cloth; but generally this is not necessary, and often prejudicial to the pure flavor of the beverage.

The first boiling gives the strength, the second addition the flavor. The water does not dissolve of the aromatic substances more than the fourth part contained in the roasted coffee.

The Propagation of Cholera—Theory of Prof. Max Pettenkofer.—With regard to the question of contagi-

ousness, Pettenkofer believes that the disease is propagated by human intercourse, and never without this; not, however, by simple contact with the diseased or their excretions, according to the old theory of contagion, but by means of certain local accessory causes contained in the soil. Temperature, wind, moisture or dryness of the atmosphere, and elevation of ground, are none of them essential for the epidemic occurrence of cholera, although they may, under certain circumstances, exercise great influence on its course; the only indispensable conditions are—the human intercourse yielding the germ in the excretions of cholera patients, and the soil developing this germ into activity.

The qualities of the soil considered as necessary for the development of the cholera germ are: 1st, that it is porous—*i. e.* permeable to air and water; 2d, that water exists at a certain depth below the surface (ground water or subsoil water); and, 3d, that the soil is in some degree impregnated with the products of organic decomposition, especially those of excrementitious origin. Respecting the first condition, Pettenkofer and the members of the Bavarian Commission for the Investigation of Cholera in 1854, have found, without a single exception, that the soil in towns or villages which were epidemically affected with cholera was porous, while localities built on impermeable rock were either entirely spared, or at all events exhibited only isolated cases.—*Lancet.*

The Action of Medicinal Preparations on the Teeth.—John Smith, M.D., F.R.C.S., Surgeon Dentist to the Royal Infirmary, in an article upon this subject in the *Edinburgh Medical Journal*, Jan. 1866, concludes as the result of experiments performed by immersing teeth in different ferruginous compounds, that some of these, when directly applied, do exercise a powerful effect on the substance of the teeth. "And," he states, "the ratio of the effects obtained would seem to prove that of all the preparations employed in these experiments that of the tincture of muriate of iron acts most powerfully; the sulphate of iron next; and next to that again, although in comparison very immaterially, the vinum ferri; the other preparations of iron appearing to be next."

Death while under the Influence of Chloroform.—Another death while under the influence of chloroform has occurred, and is related in the *Edinburgh Medical Journal*, Jan. '66. The patient was a young lady, seventeen years of age, who had repeatedly taken chloroform before for painless tooth-extraction. On the present occasion she applied to Dr. Jas. D. Gillespie, Surgeon to the Royal Infirmary, Edinburgh (who reports the case), for the purpose of having another diseased tooth extracted. Thinking that the pain might be rheumatic in character she was advised to bear with it a little while longer; but there being no abatement in the symptom the day for the extraction was fixed. After urging his patient to submit to the operation without anæsthesia, and his persuasion being of no avail, chloroform was administered. Having ascertained that the patient's clothes were loosely fastened, the surgeon placed her in a recumbent position on a sofa, and sprinkled a small quantity of chloroform on a napkin, held a short distance from the face, and commenced its administration. "She had not," continues the narrator, "taken above a very few inhalations when she became violent, struggling, and screaming out very loudly, as if she felt the extraction of the tooth. Having got a very small further supply of chloroform on the napkin I was proceeding to administer it when I thought she was sufficiently unconscious, so I put it aside; and taking up the forceps found further operations impeded by the jaws being firmly clenched. I managed, however, to force them open, applied the forceps, and extracted the tooth. I then rose from the side of the sofa, and went to the table, which was scarcely a yard distant, to get a tumbler of water to make her wash out her mouth, when I was startled by one or two long gaping respirations, the peculiar character of which I cannot explain, but which I have only heard when a patient was dying. Alarmed, I dashed some cold water over her face, which was deadly pale; examined the pupils, found them greatly dilated; pulled out the tongue, which was not, however, retracted; felt for a pulse, but in vain, and then became convinced she was hopelessly dead." Efforts at resuscitation were continued for an hour and a half, but to no purpose. The amount of chloroform actually used was not more than twenty-five minims. At the autopsy "nothing whatever abnormal was found, save that the left ventricle of the heart was very firmly and unusually contracted, and that it, as well as the left auricle, was perfectly empty. The right side of the heart was not gorged with blood, and there was no clot in any of the cavities." Dr. Gillespie is satisfied that the cause of death was to be referred to the heart. "Were I to hazard an opinion," he continues, "I would say my own impression is, that the patient, who was of a very excitable temperament, and who had been for many days suffering much pain, and intensely anxious for the removal of her tooth, must have been seized with a peculiar variety of syncope, characterized by spasm of the left side of the heart; and the fact of her being under the influence of chloroform prevented a healthy action of the heart being re-established."

Iodide of Potassium.—M. Payen, at the Academy of Sciences, remarked that this important medicine is rarely found in a state of purity. It is usually alkaline, and nearly always contains an excess of iodine. He has observed that saturated solutions of iodide, and also of bromide of potassium, unlike the alkaline chlorides, act in the cold on starch granules, which, under the influence of the solutions, acquire twenty or thirty times their natural size, so that the liquid becomes a colorless transparent mass. The commercial iodide, he states, is easily purified by saturating the potash with hydriodic acid, and by separating the excess of iodine by sulphuretted hydrogen, boiling, rest, and filtration. A solution of the salt so purified, it is said, remains colorless in a stoppered bottle after exposure to both diffuse and direct sunlight. In a slightly alkaline solution of the iodide, carbonic acid sets some iodine at liberty; atmospheric air produces the same effect, no doubt, because of the carbonic acid which is present. With regard to the curious phenomena of the alternate coloration and decoloration of iodide of starch by heat and cooling, the author believes that he has demonstrated that the decoloration by heat is occasioned by the dispersion of the amylaceous particles, the color returning when the groups of particles contract on cooling. In conclusion, M. Payen dwelt on the necessity of using the pure iodide in medicine, and pointed out that the reaction on starch described above, suggested a new inquiry into the physiological effects of the salts.—(*British Med. Jour.*)

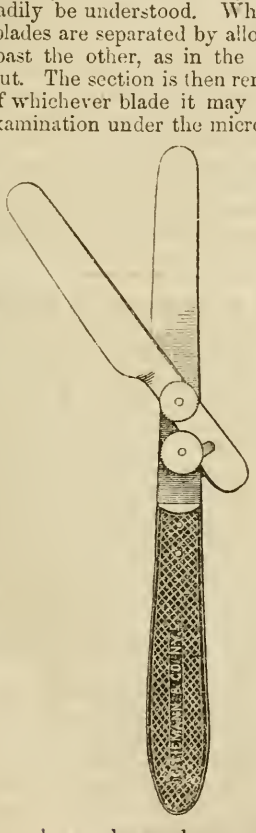
Morbid Anatomy of Pneumonia.—Dr. A. T. H. Waters, in a paper upon this subject, read before the Royal Medical and Chirurgical Society, stated his belief that engorgement was not the first morbid change which takes place in pneumonia, but that there was a prior stage characterized by a dryness of the pulmonary

membrane, and probably intense arterial injection. In proof of the probability of this condition, he referred to the existence of "a dry, harsh, loud, respiratory murmur preceding the crepitating râle."

Improvements in Instruments.

A NEW DOUBLE-BLADED KNIFE.

This instrument, devised by Messrs. Tiemann & Co., and represented below, is a modification of Valentin's knife for making sections for microscopical examinations. It consists, as will be seen, of two blades, only one of which is set in the handle; the other, or short blade, is kept attached to the first by means of two screws, the heads of which are shown. These screws are for the purpose of regulating the distance between the two blades. When the instrument is ready for use the longitudinal axes of the blades correspond, the slot in the small blade receiving the screw nearest the handle. The short blade is kept in position, while making a section, by slight pressure of the finger upon its short arm, as can readily be understood. When the section is made, the blades are separated by allowing the short one to slide past the other, as in the manner represented in the cut. The section is then removed from the inner surface of whichever blade it may adhere to, and is ready for examination under the microscope.



Parallel knives have always been much used by microscopists in making sections, but the great trouble has been that these instruments could not be used with ease or certainty. By the simple modification referred to, the principal objection which heretofore has always applied to Valentin's knife and its modifications, viz. the difficulty in removing easily the specimen from the blade, is now overcome. In this new instrument, by the sliding off of the blade, the specimen uninjured, is reached at once, and can be removed without trouble. The knife, after having its soiled portions cleansed (which can easily and quickly be done), is made ready again for use in an instant.

Correspondence.

THE COLLEGE COMMENCEMENTS—PROPOSED AMENDMENTS TO THE CONSTITUTION OF THE AMERICAN MEDICAL ASSOCIATION.

Philadelphia, March, 1866.

To the Editor of the Medical Record.

Sir:—The sessions of 1865–6 of the Medical Colleges of Philadelphia have been completed. On the 10th instant, the Commencement of the Jefferson Medical College was held, and the degree of M.D. conferred on one hundred and sixty-five graduates. Professor Rand delivered an excellent valedictory, short and to the point.

On the 14th instant, the Medical Department of the University of Pennsylvania held its Centennial Commencement at the Academy of Music, which was thronged with spectators from pit to dome, and out into the lobbies. Prof. Henry H. Smith delivered the Valedictory Address, and the degree of M.D. was conferred upon one hundred and sixty-two graduates.

Regular summer teaching will be inaugurated this year at the Colleges for the first time.

Through the munificence of Emeritus Professor Wood of the University, four auxiliary chairs have been endowed, from which instruction will be given during the summer on collateral branches of medicine which do not come under the regular curriculum of the winter schedule. These are Zoology and Comparative Anatomy by Harrison Allen, M.D.; Botany by H. C. Wood, jr., M.D.; Mineralogy and Geology by F. V. Hayden, M.D.; and Medical Jurisprudence by J. J. Reese, M.D. These lectures will be free to alumni and students of the University, a fee being demanded from others.

No wealthy admirer of the Jefferson Medical College having as yet lavished any thousands from which to pay for similar professorships, a labor of love is to be inaugurated this summer at this institution in order that its alumni, students, and matriculants, shall have the opportunity likewise of receiving daily clinical and didactic instruction in special departments of practical medicine, which can be but slightly touched upon during the regular winter course. Professors Gross, Biddle, Wallace, and Rand, have associated with themselves seven prominent clinical lecturers announced as attachés to the faculty. The branches to be taught will be most likely Ophthalmology, special departments of Physiology, Syphilology, Operative Surgery, Regional Anatomy, Diseases of the Nervous System, and similar branches, but the regular announcements are not yet out, and there may be some change in the programme. These lectures are to be free to the alumni and students of the Jefferson College, a fee to be exacted from others, but the Professors have no reserve fund from which to be remunerated as the more fortunate auxiliary faculty of the University. It is to be hoped that some liberal friend of the Jefferson College will ere long supply this deficiency.

The usual summer courses on Anatomy, Operative Surgery, Practical Obstetrics, and other special subjects, will soon commence, and with the usual facilities offered for summer tuition at the two great establishments, a large number of students will doubtless be induced to remain in the city.

At the meeting of the Philadelphia County Medical Society, held on the evening of the 14th instant, a discussion upon some proposed amendments to the Constitution of the American Medical Association was taken up, and the following may be in brief stated as the result.

To amend Article II, paragraph 4, by striking out from the first line the word "three" and inserting "five," so that the annual assessments of delegates and permanent members should be five dollars each. The portion of the amendment aiming to assess permanent members but three dollars was not favored.

They approved of the amendment to add to paragraph 14, Article II., after "unanimous vote," the following, "and shall continue such (*i.e.* permanent members) so long as they remain in good standing in the body from which they were sent as delegates."

The amendment to alter the third paragraph of the second section of the Constitution, so as to allow but one delegate to every twenty members of a local society instead of one to every ten as is now the case, was not endorsed.

They also supported an amendment to the twelfth paragraph of the second section, so that it shall read, "*The members by invitation,* shall consist of practitioners of medicine of reputable standing," "they shall receive their appointment by invitation of the meeting after an introduction from, and being vouched for by any of the members present, or any of the absent permanent members. They shall hold their connexion with the Association until the close of the annual session at which they are received, and shall be entitled to participate in all the affairs of the Association, but shall not have the right of voting."

The proposed amendment of the sixteenth paragraph of the second section was likewise favored, so that it shall read, "the permanent members shall at all times be entitled to attend the meetings and participate in the affairs of the Association, so long as they shall continue to conform to its regulations, but without the right of voting," and to repeal the remaining part of the paragraph.

The following additional paragraph was also approved of:—

"All Ex-Presidents and Ex-Vice-Presidents, and all permanent members of the Association, who have attended as delegates four annual meetings of the Association, shall possess all the powers and enjoy all the rights of elected delegates."

Lastly, a recommendation to strike out from paragraph fourteen, article eleven, page 341, *Transactions*, 1864, the following, "and of such other members as may receive the appointment by unanimous vote," was adopted.

The advantages and disadvantages of the proposed amendments were fully discussed in detail, and the foregoing result of the discussion is to be officially presented to their delegates as the unanimous instruction of the society with regard to the subject.

Yours truly,
C. J.

PRIZES OF AMERICAN MEDICAL ASSOCIATION.

PHILADELPHIA, March 16th, 1866.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In reply to numerous inquiries, permit me, through your columns, to state the conditions required by the Committee on Prize Essays, of all who desire to compete for the prizes offered by our Association.

"All communications, with motto attached, and name in sealed envelope, must be sent to the Chairman, Dr. Austin Flint, 257 Fourth Avenue, New York, *on or before* April 15th, 1866.

"If the authorship of an essay is declared to any of the Committee, said essay shall not be considered in competition for the prizes."

This Committee have power to "award *two prizes of one hundred dollars each,* to the best two volunteer communications reported on favorably by them, and directed by the Association to be published."

The volume of Transactions is now completed, and only awaits the insertion of the plates to be ready for distribution. In this connexion I would say that no one is entitled to it who has not paid the full subscription of five dollars. I am yours, &c.,

WM. B. ATKINSON,
Permanent Secretary American Med. Association.

CHOLERA IN 1832.

NEW YORK, March, 1866.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the "Personal Reminiscences of the Life and Times of Gardiner Spring, Pastor of the Brick Presbyterian Church" in this city, a recent publication, are the following remarks.

"In the year 1831 the Asiatic Cholera desolated the city. It was a fearful season, during the months of July and August. It was was no unusual occurrence for twenty, thirty, fifty of our citizens to be swept off in a day. When the number of deaths daily increased to beyond one hundred, the alarm was terrific. Medical skill was altogether at fault, and medical men, not a few, and among them my own family physician, abandoned their posts and fled to the country."

The year mentioned in the above extract, page 212, is not correct. It should be 1832. Can any of the brethren, familiar with that epidemic, testify to what extent physicians "abandoned their posts and fled to the country?" E.

DR. O. D. POMEROY'S INHALER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In your issue of March 15th, you do not seem to have had a clear idea of the construction of the Inhaler labelled with my name. I will quote:—"The nozzle of the instrument is bulbous at its extremity, for the adaptation of elastic tubing, when it is found necessary to connect it with any other instrument, such, for instance, as a catheter. The other extremity of the instrument is tapering, for introduction into the nostrils." By this it would seem that there are two nozzles to the instrument; one bulbed, for the reception of an elastic tube, the other tapering, for introduction into the nostrils. The facts are these: the tapering end is for introduction into the nostril, and also admits of receiving upon its extremity an elastic tube, by which to connect it with a catheter.

You speak of the Buttles instrument being better suited for introduction into the mouth. This instrument was only intended to be applied to the nostrils.

Dr. Buttles himself has a glass inhaler, which has not this objection; the sponge being introduced at the base of the instrument which protrudes from the mouth, when adjusted for inhalation.

This instrument could not be so constructed, as the aperture for the insertion of the sponge must needs be too large to admit of an elastic tube of convenient size to be attached to it, and besides, whenever the sponge was adjusted, the tube must be removed.

You suggest the adaptability of instruments of this class, for the "treatment of all those catarrhal affections in which it might be necessary to bring medicated vapors in more perfect contact with those parts which might be beyond the reach of currents induced by ordinary inspiration."

In many cases of inflammation of the middle ear, we

have as a concomitant, chronic naso-pharyngeal catarrh, which must be attended to, or the ear difficulty progresses unfavorably. (It may indeed, as is often the case, have been caused in the first place by the catarrh.) In such cases, I think great benefit is derived from the injection of iodine vapor, by means of this apparatus into the nasal cavity, when it will come in contact with every part of the diseased surface. My experience with this mode of treatment is limited, but it has thus far seemed a valuable assistant to the treatment of this very annoying affection, especially as fluid injections are not, in many instances, well borne. The same treatment is applicable in ordinary nasal catarrh. By attaching to the inhaler an apparatus for volatilizing by the agency of heat, a great variety of therapeutic agents may be employed, either for treating diseases of the nasal passages or of the middle ear.

Very respectfully,
O. D. Pomeroy.

Obituary.

PROFESSOR SCHUH, OF VIENNA.

Dr. Frans Schuh, late Professor of Surgery in the University of Vienna, Austria, whose death we announced in our last number, was born in *Scheibbs*, in Austria, in 1805. After passing through the usual preliminary course, he began the study of medicine in Vienna, and received the degree of Doctor of Medicine and Surgery in 1831. After some time spent as an assistant to Baron Waltman in the practice of Operative Surgery, he was made in 1836 Professor of Surgery in Salzburg, and in 1837, one of the Surgeons to the General Hospital in Vienna, and in 1841 was made Professor of Surgery in Vienna, which position he continued to hold until his death. Professor Schuh was best known by his great work on the *Pathology and Therapeutics of the Pseudo-Plasma*, in which for the first time the investigations made by the microscope were made available for the practice of surgery. He was also the author of a work on Facial Neuralgia and the Resection of Nerves. His admirers claimed for him, that he was "a reformer in surgery in the noblest sense of the word, being to this science and art what *Skoda* is for the diseases of the chest, and Hebra for those of the skin."

The casual American visitor attending the clinic of Professor Schuh would hardly come to the same conclusion. His manner was rather commonplace, although his clinical lectures were marked by strong common sense, and his clear unembarrassing method of questioning the students in regard to the cases which were presented to him was something very pleasant to hear. He was a man of perhaps a little below the average size, and had a bright genial face.

New Publications.

Books and Pamphlets Received.

Transactions of the Medical Society of the County of Kings, N. Y. (From Society.)

Sexual Physiology; a Scientific and Popular Exposition of the Fundamental Problems of Sociology. By R. T. Trall, M.D. New York: Miller, Wood & Co. 1866. 12mo. pp. 312.

A Communication from the City Physician (Boston) on Asiatic Cholera. Is it a Contagious Disease? From Author.

Report of Board of Trustees of the Massachusetts General Hospital for the year 1865.

Introductory Lecture in Histology and Pathological Anatomy. By R. Cresson Stiles, M.D., Consulting Physician to Kings Co. Hospital, etc., etc.

Catalogue of the College of Physicians and Surgeons. 1807–1865.

Facts in Relation to Placenta Prævia. By Professor Isaac E. Taylor, M.D., etc.

Medical News.

Appointments.

Island Hospital.—The following gentlemen have been appointed as members of the new Medical Board:

Physicians—Drs. I. E. Taylor, Geo. T. Elliott, Austin Flint, Benj. W. McCready, Gonzales Echeverria, Wm. H. Thomson, Alfred L. Loomis, J. Lewis Smith.

Surgeons—Drs. Jas. R. Wood, Alex. B. Mott, Frank H. Hamilton, Lewis A. Sayre, Stephen Smith, F. J. Bumstead, Erskine Mason, H. D. Noyes.

Bellevue Hospital.—The following gentlemen have been appointed junior assistants to the house staff of Bellevue Hospital: Wm. R. Fisher, Drs. James B. Burnett, Henry D. Nicol, Charles Young, H. F. Walker, J. Calvin Mead, J. W. Howe, D. McLean Forman. The following are provisional appointees: Francis Dubois, Drs. Joseph O'Dwyer, Joseph S. Winston, P. Robertson Inches, Leroy M. Yale, R. L. Sykes, Dayton W. Searle.

Metropolitan Board of Health.—The following additional appointments have been made since our last issue:—Assistant Sanitary Superintendent, Dr. John E. Conklin, of Brooklyn; Deputy Register of Records, Dr. R. Cresson Stiles, of Brooklyn. Sanitary Inspectors: Drs. Alba Blaisdell, James L. Brown vice J. Lewis Smith declined, W. J. Deming, J. Haven Emerson, Guido Furman, E. H. Janes, Moreau Morris, and Robert Newman of N. Y.; Drs. J. M. Allin, G. W. Baker, James R. Bird, Frederic H. Colton, S. N. Fisk, and Fowler Prentis of Brooklyn, N. Y.

Faculty of the College of Physicians and Surgeons.—A very tasty and neat card, containing the vignettes of the professors of the College of Physicians and Surgeons, together with a view of the institution itself, has lately been published. The likenesses, which are all lifelike, are arranged in an oval, while a three-quarter view of the college occupies the centre. It has been published at the instance of the enterprising janitor, Mr. Denham, and is one of the handsomest pictures to its kind that we have seen.

Alumni Association of the College of Physicians and Surgeons, N. Y.—The Eighth Annual Meeting was held at the College building, corner Twenty-third street and Fourth avenue, on Friday evening, March 9th. The President, Dr. John G. Adams, in his inaugural address, gave some interesting points in the history of the institution, and paid a high compliment to those graduates who had in so large numbers sustained the reputation of their Alma Mater in the service of their country. The following gentlemen were elected officers for the ensuing year: President, Dr. Alfred C. Post; Vice-President, Dr. Gurdon Buck; Secretary, Dr. Ellsworth Eliot; Treasurer, Dr. Henry B. Sands. The Board of Councillors were, in the main, reëlected. The Standing Committee on Publication of the Triennial Catalogue was also reëlected, and consisted of the following: Drs. Gurdon Buck, Samuel St. John, Ellsworth Eliot, Henry B. Sands, and Dr. John Shrady, Jr. Dr. Samuel R. Percy was awarded the

prize offered by one of the Association for the best thesis on any medical subject. The title of the successful essay was: "What Effect has the Meat or Milk of Diseased Animals upon the Public Health?" Honorable mention was made of the following: "The Sanitary Condition of large Cities," and "Certain Diseases of Accommodation in the Visual Apparatus." A committee was appointed to confer with Dr. Percy regarding the publication of his paper, and the matter of prizes was put upon a permanent basis through the munificence of Dr. Delafield, who subscribed the full amount, $1500, as a fund to be invested, the interest of which should be devoted to the encouragement of medical writing on the part of the alumni. The Committee on Publication of the College Catalogue received the thanks of the Association for the elegant and satisfactory manner in which their duty had been performed. On motion of Dr. Gabriel Grant, it was substantially resolved that, by and with the consent of the Trustees, a tablet to the memory of all those who had fallen at the post of duty during the late war should be erected in the College at the expense of the Association. By a subsequent resolution, the officers of the association were constituted a committee, with power to confer with the Trustees and collect the necessary subscriptions. Dr. Ellsworth Eliot read a series of very interesting obituaries of members deceased since the last meeting, after which the meeting adjourned.

New York Pathological Society.—At the meeting held February 28th, the following gentlemen were elected members: Drs. A. Koehler, A. E. M. Purdy, and Wooster Beach, Jr. At the meeting held March 14, the following candidates to the American Medical association were elected: Drs. Finnell, A. E. M. Purdy, Rogers, Allin, Hamilton, Eliot, Peaslee, Bibbins, Bradley, Garrish, and Connolly.

New York County Medical Society.—At the next regular meeting, which will be held April 2d, Dr. William H. Thomson will read the concluding portion of his paper on "Chlorosis." Dr. Isaac E. Taylor will follow with a paper on "Recto-vaginal and Recto-labial Fistulæ."

The Obstetric Section of the N. Y. Academy of Medicine held its regular monthly meeting, March 19, at the house of the Chairman, Dr. Jos. Worster. The attendance was large, and the meeting was an interesting one. The discussion upon Dysmenorrhœa was continued, and remarks referring more particularly to the treatment of the affection were made by Drs. Church, Joel Foster, Van Kleek, Prince, Dewees, Peaslee, Hubbard, Bibbins, Garrish, Batchelder, and the Chairman. The remedies spoken of were naturally divided into those which were to be used during the paroxysm, and those which were to be employed in the interval. Of the former class, conium and guiacum, belladonna, camphor, opium, hyoscyamus, etc, hypodermic injections of morphine, and hip-baths, sinapisms to hips, etc., were more particularly recommended; while during the intervals the treatment was such as tended to meet the several indications, such as the use of iron, of Dewees' guiacum, leeches to the os, blisters to hypogastrium, and dilatation of os by means of bougie, sound, or sponge-tent. At the next meeting the "relation of cases" will occupy the members.

Harvard Medical School.—The graduating exercises of this school took place at the College, Grove st., Boston, on the 7th of March. Prof. Storer delivered the address. The graduating class numbered 70.

Eulogies on Dr. Mott.—The eloquent eulogy lately pronounced by Dr. G. S. Bedford upon Dr. Valentine Mott before the New York County Medical Society, as well as the one delivered by Prof. A. C. Post before the N. Y. Academy of Medicine, is shortly to be published in pamphlet-form.

The Army Medical Staff.—The bill introduced into the U. S. Senate by Senator Wilson for the reorganization of the army, has with some slight modifications passed. We extract that portion of it which refers to the Army Medical Staff:—Section 18 provides that the medical department of the army shall hereafter consist of one Surgeon-General, with rank, pay, and emoluments of a brigadier-general; one assistant Surgeon-General, with the rank, pay, and emoluments of a colonel of cavalry; seventy-five surgeons, with rank, pay, and emoluments of majors of cavalry; one hundred and fifty assistant surgeons, with the rank, pay, and emoluments of first lieutenants of cavalry, after three years' service, and with the rank, pay, and emoluments of first-lieutenants of cavalry for the first three years of service; and five medical storekeepers, with the same compensation as is now provided by law; and the vacancies hereby created in the grade of surgeon and assistant surgeon shall be filled by selection from among the staff and regimental surgeons and assistant surgeons of volunteers, who have served two years during the war; and assistant-surgeons who have served three years in the volunteer service, shall be eligible for promotion to the grade of captain. The Secretary of War is authorized to appoint from the enlisted men of the army, and to cause to be enlisted, as many competent hospital stewards as the service may require to be permanently attached to the Medical Department, under such regulations as the Secretary of War may prescribe. Section 19 reads thus:—"That upon the recommendation of the Surgeon-General the Secretary of War may detail a chief surgeon as chief medical purveyor, who, while performing such duty, shall be in charge of the principal purchasing and issuing depot of medical supplies, and shall have the rank, &c., of a colonel of cavalry; and not to exceed five medical officers, as assistant medical purveyors, who, while performing such duty in the different geographical departments, shall have the rank, pay, and emoluments of lieutenant-colonel of cavalry."

Trichiniasis.—At the suggestion of Prof. Rokitansky a committee consisting of Profs. Wedl, Röll, and Klob, has been appointed by the Imperial Society of Physicians in Vienna, to study and report upon Trichiniasis. Of the 350 persons affected during the late epidemic at Hedersleben, more than ninety have died. The village contained but 1800 inhabitants.—(*Boston Med. & Surg. Jour.*)

The Treatment for Sub-Acute Synovitis—Mr. W. Adams, of the Great Northern Hospital, reports that he has been employing for some time, with excellent results, the following plan of treatment: A large blister is applied to the skin, and over the swelling; the raw cuticle is removed by a scissors, and the raised surface is dressed with strong mercurial ointment. No constitutional disturbance is said to result from this treatment.

Errata.—Page 26 (Dr. Bumstead's article), 3d paragraph, instead of "Differences in characters, so-called" read "Differences in *chancres*, so-called." Page 29 (Dr. Clark's lecture), 1st column, line 27, read instead of "reached Astrachan in 1832," "reached Astrachan in 1823."

Original Communications.

A NEW
OPERATION FOR UMBILICAL HERNIA,

WITH REMARKS UPON EXPLORATORY INCISIONS OF THE ABDOMEN.

By HORATIO ROBINSON STORER, M.D.,

OF BOSTON, ASSISTANT IN OBSTETRICS AND MEDICAL JURISPRUDENCE IN HARVARD UNIVERSITY, SURGEON TO THE NEW ENGLAND HOSPITAL FOR WOMEN, AND PROFESSOR OF OBSTETRICS AND THE DISEASES OF WOMEN IN BERKSHIRE MEDICAL COLLEGE.

Umbilical Hernia has usually been considered one of the most unsatisfactory lesions to deal with in surgery. Its treatment, save when strangulated, has been generally confined to attempts at palliation, frequently fruitless; and a host of writers, as Skey, Cooper, Pancoast, Miller, Lawrence, Malgaigne, Erichsen, Nelaton, and Druitt, have failed to suggest any radical treatment whatever, merely loosening impacted intestinal protrusions in the complication referred to by crucial, T-shaped, or longitudinal incisions, or mentioning that where a ligature had sometimes been employed, in simple cases, the result had generally been fatal. To a large class of cases, those accompanied by ascitic effusion, scarcely any attention seems to have been given. In children, the edges of the ring, and at times small portions of the sac, have been removed by Barwell* with a successful result, and the same operation has been attempted in the adult.

The method pursued in the case now reported is, so far as I am aware, a novel one. I believe that it will be found worthy of being followed as a precedent in a large and varied class of diseases, and I therefore present it, with a statement of the several criticisms that have already been vouchsafed me, to the intelligent notice of the profession.

Mary Lynch, æt. 41, entered the Woman's Hospital of Boston on the third of June, 1865. She had long been suffering from hepatic disease. A patient of my father's some fifteen years since, my own knowledge of her ran back more than ten years, to 1855, at which time she had been under the care of Dr. Nathan Hayward and myself, at the Eustis St. Charitable Dispensary then existing in Roxbury. During this long period she had always been an invalid, with occasional attacks of jaundice and hepatic pain. She had been in most if not all of our hospitals, so patient and uncomplaining as to be a not unwelcome inmate, and her case must have been a familiar one to many medical men. By several of those who had had charge of her, she had been thought to have malignant disease, by others chronic inflammation; all, however, had concurred in pronouncing the liver the organ affected. She was now ascitic, and had already been once tapped at the City Hospital.

I admitted her to the Woman's Hospital, contrary to my usual custom in other than purely pelvic disease, because there had been some slight menstrual derangement, and I thought that to this, as indicating the approach of the climacteric, might be referred the change, ascitic effusion, that had occurred in the progress of her case.

From this time forward the ascitic symptoms became more and more marked. The woman's condition at admission was feeble, so that I did not anticipate she could be kept living more than a few weeks; no less than nine months, however, elapsed before her death. Towards the close of this period, the effusion of fluid was so rapid that it became necessary to tap her twice a week; the amount removed varying from two to three gallons, according as she was able to bear more or less upward pressure upon the diaphragm, and the dyspnœa that it produced.

The uterine symptoms, I have said, were slight. Vaginal examination showed only a little hypertrophy of the upper uterine walls. There were present from the commencement, one or two peculiarities recognised as such during abdominal examination, and satisfactorily accounted for at the autopsy. These are interesting in their connexion with differential diagnosis. There was lateral tympany both before and after each tapping, no matter what the position of the patient; an unusual condition in ascites. There was always an obstruction to the escape of serum when punctures were made at the flanks, and the obstacle could not be removed by passing a probe or sound, as can be done with partially floating intestine. There was often a dulness and induration extending down from the right hypochondrium into the iliac region, perceptible also after tapping and apparently continuous from the liver. By several gentlemen who had essayed palpation, it was pronounced as unequivocally the downward prolongation of an hypertrophied right lobe. That this was a mistake was ascertained at the first of the abdominal sections I am about to describe; the causes of the other peculiarities referred to were determined at the autopsy. After every tapping, the abdomen became flat, with the exception of the right side just alluded to, and the epigastrium, a little to the right of which there was at times a rounded tumor nearly of the size of the fist and very sensitive, which I proved long before her death to be the distended gall-bladder.

The patient had always expressed the deepest interest in her case. Many years back, though a Catholic, she had compelled me to promise her an autopsy, if she should die under my care. Soon after entering the hospital, she began to importune me to make an exploratory section, as she was convinced I should find her disease dependent upon some outgrowth capable of removal. To this I long demurred, but believing that exploratory incisions are comparatively safe, and that, if oftener made, they would frequently disclose curable disease previously doubtful or unsuspected, I at last consented, and on the 21st of November, 1865, subjected her to the first section, which was solely of an exploratory character.

The incision was made downwards, from just below the umbilicus, and of a length freely to admit the index and middle fingers. The abdominal wall was so anasarcous that drops of serum were discharged, before I opened any point whatever of the peritoneum. I carefully examined the organs of the pelvis, finding the ovaries normal, but the uterus slightly enlarged, the abdominal cavity free from outgrowth of any kind, the liver atrophied rather than hypertrophied, no prolongation whatever of either of its lobes, and the gall-bladder distended and tense.

The wound was closed by four metallic sutures, and they were protected from contact with the bed-clothes by a hooped frame. Upon the fourth day the sutures were untwisted, and upon the fifth they were withdrawn, union being complete and firm. Effected as this was under the most adverse circumstances, there being constant upward pressure from the ascitic fluid, the result was a very satisfactory one.

In a week or two the patient was as well as before the operation; nay, indeed, she seemed improved. The rapidity of ascitic secretion was not in the least affected either for better or worse; the disease had been steadily progressing in this respect, ever since she entered the

* *Lancet*, November, 1861, p. 471.

hospital. Some two months after the section, that is to say, at the opening of the present year, my attention was called to the condition of the umbilicus. This had been gradually becoming more and more patulous until it was, when distended, but little more than a thin membrane, partially, however, regaining its contractility whenever, by tapping, the pressure from within was withdrawn. There was evident danger of rupture; to prevent which, as it would have been very likely to cause the death of my patient, I was compelled to tap her oftener than I should otherwise have done.

Not merely did this distension of the umbilicus excite my fears; it became very painful to the patient. Attempts were of course made by pads and various forms of compress, by strips of adhesive plaster and the like, to keep the protrusion at the navel within due bounds, but these were alike unbearable and inefficient; the pressure even of the bed-clothes could not at times be borne, and the woman frequently begged me to attempt to mitigate her suffering.

Upon mature deliberation, satisfied that the risk of rupture was imminent, and that its occurrence, especially if at night, might kill so feeble a patient as this, by shock, for the laceration would have been more than likely to be extensive, and therefore to permit a sudden and profuse discharge, I determined to excise the umbilicus, by long incisions made through the whole thickness of the abdominal walls.

This operation, so far as I could then or since ascertain, had never been performed. I was aware that, whether successful or unsuccessful, it would occasion criticism, and that this, almost necessarily, might be severe, but in certain cases it becomes necessary to take the responsibility.

Upon the 4th of February, the patient having been tapped for the forty-fifth time, she was again etherized, and at 9 a.m. the operation commenced. I had determined to resort to a double incision, of so great a length that, upon bringing the edges of the wound together, there would be no gathering, puckering, or wrinkling, as must else have inevitably obtained. I therefore commenced my incisions at a point some three inches below the lower level of the umbilicus, and terminated them at a corresponding point some two and a half inches above the upper edge, their whole length being about seven and a half inches. They were therefore divergent for the first of the spaces named, nearly parallel for two inches, and again convergent till they met.*

I worked from below upwards, for convenience sake, since I had determined to prevent, if possible, any the slightest protrusion of intestine; and in this, by the simple expedient of inserting the sutures as fast as the incisions were made, I succeeded perfectly. These sutures were metallic, and twenty-one in number. From the moment they were twisted, not a drop of serum escaped through the wound; this could not have been so perfectly prevented, had the incision been shorter, as there would necessarily have been more or less gathering or plaiting of its edges.

The patient rallied perfectly after the operation, requiring but little in the way of direct stimulant, and, as in her former section, she was very shortly put upon small but frequently repeated doses of beef tea and boiled milk and flour. She did as well as could have been desired for twenty-four hours; at the end of this period, she received a sudden fright, whose effects were immediately perceptible upon her. She rapidly sank, and died at midnight of the 5th, of secondary shock, thirty-eight hours after the operation.

At the autopsy, on the following day, upon removal of the sutures, the wound was found completely united; throughout the greater part of its thickness for its whole extent, considerable traction upon the integument upon each side being unable to open the wound, and at no point of its surface could the smallest probe be passed.

The operation therefore, as an operation, was a success.

There was no sign whatever of recent peritonitic inflammation. The liver was not above the normal size, and presented evidence only of chronic inflammation. The gall-bladder was distended by large biliary calculi. The colon was adherent to the subjacent tissues throughout its whole extent, so that it could not be raised or separated from them; this state of things having evidently been of very long standing and perfectly explaining the abnormal diagnostic and other conditions already referred to. The uterus contained a small fibroid in its left upper wall anteriorly, the size perhaps of a chestnut. The ovaries and other appendages were healthy.

I reported the case at a meeting of the Suffolk District Society on the 24th of February, in the firm conviction that the operation, though a bold one, was authorized by the condition of the patient, and that it was the only one that indeed I should have been justified in performing. Some of my friends then present were, however, of so different an opinion, that I have thought the question of sufficient importance in its scientific aspects, and as establishing a precedent for the future treatment of similar cases, to submit it for decision to the profession at large.

In presenting the strictures of the gentlemen referred to, I have preferred not to rely upon my memory, but have submitted my notes of their remarks to their own personal revision.

"Prof. Calvin Ellis thought the operation liable to criticism. It had not been claimed that its performance was undertaken with the hope of curing the patient, nor that, with the single exception of guarding against rupture of the umbilicus, it could have materially prolonged her days, or have done away with the necessity of frequent tapping. Abdominal section was too grave an operation, was attended with too severe immediate risks, to be resorted to for the prevention of a possible accident, the removal of a danger that merely threatened. According to the reporter's own showing, there was reason to believe that there existed no abdominal or pelvic tumor capable of removal, and therefore the first section could hardly have been required.

"Prof. Richard M. Hodges could not see why removal of the umbilicus without opening the peritoneum would not have been an equally efficient operation, and far preferable because less dangerous. It was well known that such a method had been frequently employed in diseases of the umbilicus. As regards the question of securing immediate union of abdominal wounds, in cases where there had been previous distension, he thought if the patient lived long enough there could be seldom any difficulty in effecting it. This was particularly the case in sections for the removal of ovarian tumors, in which, from the subsequent laxity of the integuments, the edges of the wound were brought into very close apposition. He had frequently seen immediate union under such circumstances.

"In answer to the inquiry whether such union had been throughout the whole length of the wound, Dr. H. excepted, of course, the points where a pedicle or ligature had been brought through.

"In conversation after the meeting, Dr. Minot, who had presided, expressed the opinion that rather than

* The portion removed was subsequently exhibited to the Suffolk District Medical Society. After the operation, the umbilical sac of course underwent a certain measure of contraction, and this was still further increased by the alcohol in which it was immersed.

perform the operation, the umbilicus should have been allowed to rupture; that there would have been very little risk to the patient from this, even had it occurred at night. He would have punctured the distended umbilicus in preference to tapping elsewhere, and allowed the canula to remain in permanently. He did not consider that anything could justify the operation of excision of the umbilicus in such a case."

These several objections may be more conveniently considered, if presented in a tabular form.

It was asserted, by direct statement or by implication:

I. As regards the special case,

1. That no operative procedure whatever of a radical character was indicated.—*Dr. Ellis.*

2. That the removal of merely the umbilical integument would have been preferable.—*Dr. Hodges.*

3. That tapping the hernial sac and allowing the canula to remain permanently in situ would have been preferable.—*Dr. Minot.*

4. That even to allow rupture of the umbilicus would have been preferable.—*Dr. Minot.*

II. As regards my operation abstractly,

5. That nothing whatever can justify excision of the umbilicus in a similar case.—*Dr. Minot.*

III. As regards the general subject,

6. That abdominal sections are of themselves too dangerous to be employed for merely exploratory purposes.—*Dr. Ellis.*

7. That such sections should be undertaken only for the removal of tumors, pelvic or abdominal, previously diagnosticated.—*Dr. Ellis.*

8. That securing immediate union of the wound, in operative sections of the abdomen, is already the rule rather than the exception.—*Dr. Hodges.*

These several criticisms will require but a word of reply.

1. The operation was performed after long study of the case and careful comparison of possible gain and loss. It was neither experiment nor the result of hasty conclusion. The mere fact of excessive physical prostration or the existence of some chronic or incurable disease are not necessarily bars to the operation. They, of course, render it more perilous, and it is an advantage to have them absent. We must take our patients, however, as we find them; we are not to quietly fold our hands and do nothing, merely because their condition is not wholly satisfactory to us.

2. In ordinary umbilical hernia, uncomplicated with ascites, it is no doubt a much better procedure to make merely a superficial excision, leaving the peritoneum wholly intact, if it can be done, as is not, however, always the case. This method, had it been possible, would have been useless in the present instance. The peritoneum, having been so largely distended, would have been made to project inwards in plaits or folds. These would soon have been effaced by the rapid refilling of the abdominal cavity, and the want of correspondence with each other of the external and internal inclosing surfaces would have been likely to prevent adhesion of the edges of the wound, or, if effected, to break it down. I have no doubt of the excellence of this method in many instances of simple umbilical hernia. The present case, however, was a very different affair, and moreover the dissection of the superficial integument from the peritoneal membrane forming the hernial sac, could hardly have been performed, they were so intimately blended together. This membrane, it must be recollected, enters in such cases the opening of the umbilical ring. It lines the sac, and when this has been greatly distended, the procedure it is asserted I should have performed, may become for all really practical purposes, an impossibility.

Were it supposed that, granting the necessity of complete excision, the removal of the mere umbilical ring, a circular or small elliptical space, would have sufficed, and therefore from its more limited extent have been less dangerous, I should answer that it is particularly important to insure a perfect coaptation of the lips of the wound, and that when this is circular or even oval in form, it becomes a matter of extreme difficulty, if not impracticable, more especially when complicated with rapid ascitic effusion.

3. The plan of tapping the umbilicus was thought of, and more than once discussed. It was evident, however, that it was a procedure that would be not unattended with danger. So thin and membranous did the integument become during the bi-weekly intervals between tapping, that even a small opening would have been unlikely to heal. There had more than once been perceived an indolence in this respect of the lateral punctures, where the integuments were thick and therefore in a more favorable condition. Moreover, to have tapped at the umbilicus would have increased the risk of wounding the intestine, a knuckle of which was often plainly to be perceived within the sac. Attempts had been made to overcome these difficulties, and reduce the frequency of tapping, by allowing the canula to remain in position, in more than one region of the abdomen. In each instance, however, so much pain had been occasioned as to necessitate its early withdrawal. There is no reason to suppose that it would have been borne more easily at the umbilicus. The very sensitive condition of this, to which I have already referred, warrants the belief that the experiment would have occasioned unnecessary suffering.

In his work upon abdominal hernia, Sir Astley Cooper expressly warns against tapping at the umbilicus: "We often," he says, "see during ascites the umbilicus projecting, the skin thin, and a fluid evidently contained within it, and sometimes the water has been discharged by puncturing it with a lancet. Mr. Warner, formerly Surgeon of Guy's Hospital and author of several surgical tracts and cases, gives an account of a hernia being produced by puncturing the navel in dropsy, which is a valid objection against tapping the abdomen either at the navel or above it, both because it may lay the foundation of hernia, and because it is possible that a portion of intestine may adhere to the umbilicus, which would be wounded by the puncture."*

4. I have stated my belief that had the hernial sac been allowed to rupture, liable as it would have been to extensive laceration, the consequences would have probably been fatal to the patient. It is not so very many years since surgeons were in the habit of exerting pressure upon the abdominal walls by swathes, the many-tailed bandage, &c., &c;, during paracentesis, lest the discharge of even a trifling jet of serum might depress the vital powers by shock. The necessity of this was doubtless over-estimated. It were surely, however, the other extreme of practice to advise emptying the abdominal cavity by a wide opening, or to deny the existence of danger where such should accidentally have occurred.

5. The abstract statement that nothing can justify an operation in cases concerning whose special and individual features the objector has no personal knowledge, is at least sufficiently dogmatic. Such assertions are indeed unanswerable, but it is from the simple fact that from being in themselves unreasonable, they are incapable of being reasoned to.

* Anatomy and Surgical Treatment of Abdominal Hernia. Part II., p. 31.

6. The argument that exploratory sections of the abdomen are too dangerous to be justified, rests, like many of the aphorisms of surgery, upon a mere assumption; and this assumption an erroneous one. There is no hesitation felt by surgeons in opening the abdomen where they are sure of the diagnosis, and that an operation is required. It is found that there is little risk in opening the peritoneum for the relief of hernia, and the profession are gradually perceiving that the essential mortality of ovarian sections has been very much overestimated. I am accustomed to put little reliance upon statistical evidence, gathered as this necessarily is from sources the most diverse, as regards skill, experience, and credibility, and based upon cases the most various even in their points of similarity, but even the testimony of statistics seems concurrent towards decided tolerance of incised wounds by the peritoneum.

If we but change the field of inquiry and examine into the comparative justifiability of many of the operations of general surgery, even for exploratory purposes alone, I think I am safe in saying that my own operation would suffer nothing by the comparison. There are indeed some exploratory sections that have been made, and I need not go far for instances in point, that will hardly bear too critical discussion. A single reference will make this sufficiently evident.

On the 25th of June, 1858, an examination, to which the term vivisection was at the time applied, was made of a man in the Dead House attached to the Jail in Boston. The examination was conducted by the gentleman to whose criticism upon my own operation I am now replying. Previous to making any incision, it was noticed that "a slight but regular pulsatory movement was observed in the right subclavian vein. Upon applying the ear to the chest, this was ascertained to proceed from the heart itself, which gave a distinct and regular single beat, with a slight impulse, eighty times in a minute. The chest was then opened, and the heart exposed, without in any way arresting the pulsatory movements. The right auricle was in full and regular motion, contracting and dilating with beautiful distinctness and energy."* It is not my intention to refer to any of the medico-legal aspects of this case, though in view of the laws defining criminal responsibility, it will hardly establish a precedent that can safely be followed—nor will I dwell upon the fact that the man thus incised, and incised to death, for exploratory purposes, was a criminal whose end the judicial officers, who alone are justified in committing homicide for legal ends, had failed to accomplish. I need merely say that this antemortem autopsy showed most conclusively that all the vital organs of the body had escaped serious injury during the fall from the scaffold, "a small space under the left ear having escaped active compression, so that some circulation might have continued through the carotid and jugular of that side," and that, as was acknowledged by the reporter of the examination, "resuscitation might possibly have been accomplished within half an hour after he fell;" and if at that time, probably also an hour later, at the time of the section. I allude to this case with hesitation, for it reopens a most delicate though important question in medical jurisprudence, that might else remain at rest; but in relieving ourselves from the imputation of having been hasty or injudicious in our conduct, we cannot but recognise the pertinency of collateral illustration.

7. It is impossible, as yet, to be always sure, or ever positively sure, of an abdominal diagnosis. Upon this point I have offered some remarks in a late paper upon extirpation of the uterus by abdominal section, to which, as the subject is a most important one, I would here refer; at this moment reproducing but a single sentence to evidence my own opinion: "With regard generally to a more frequent resort to exploratory incisions than now obtains, I cannot express myself too favorably, and I believe that upon this point I represent the opinion of the best ovariotomists. There are some pressing cases, where it is absolutely impossible to be positively certain as to the existence of a tumor, let alone its differential diagnosis, even if anæsthesia has been employed. The fact that, upon incision, no tumor has been found in some such cases, has been made altogether too much of as an argument against section. As well might it be said that the cavity of the uterus is never to be explored by sponge tents, because in many cases of uterine hæmorrhage where they have been employed, only negative evidence has been attained."*

There are many, I am well aware, who are of decidedly a different opinion. In the discussion, however, of operations, as of medicinal procedures, it is often the case that those criticising the most severely are from among physicians with little practical and experimental knowledge of the matter in question. I do not apply this remark to the gentlemen to whose strictures upon excision of the umbilicus I have called attention, for their general good judgment, skill, and experience are well known; but it has been the case with the verbal ordeals through which have passed the uterine sound, the stem pessary, chloroform in child-bed, and a host of the other valuable appliances of my own department of the profession, unscathed.

That I have transferred the discussion from the field in which it occurred, I may remark, in passing, has been from no discourteous feeling to the other parties engaged, but for three good reasons, viz. that the question, having become a public one, belongs to the profession at large; that such, the only jury by which we stand or fall, is best reached through a journal of more than local circulation; and that for reasons stated on page 234 of the 16th volume of the American Medical Association Transactions, I could pursue no other course.

8. And finally: To the last of the points made, I cannot, for lack of time, do more at the present moment than refer. The allowance made by my friend, at the time my case came under fire, that by the general union of abdominal wounds by the first intention, he intended only such portions of them as did not include the parts where a pedicle or ligatures had been brought through, grants very material ground for which I have elsewhere been contending, and which has as yet been unaccepted by many surgeons. As one great step towards controlling even the present mortality of abdominal sections, operators must recognise the fact that in special sources of irritation that can be safely avoided, lie many of the dangers which still wreck their patients and discourage themselves.

In the hope that in excision of the umbilicus by deep incisions, and in the adaptation of a similar method of procedure to other forms of else incurable rupture, surgeons may find the means of more satisfactorily treating abdominal hernia, this paper is submitted for their judgment.

Hotel Pelham, Boston, 4th April, 1866.

DISCOVERY OF TRICHINA.—It is claimed by English physicians that to Mr. Paget belongs the credit of having first drawn the attention of the profession to the existence of this now celebrated flesh-worm.

* Extract from Records of Society for Med. Improvement. Boston Med. and Surg. Journal, July 15 [1858, p. 481].

* American Journal of the Medical Sciences, Jan., 1866.

THE ELIMINATION THEORY OF PNEUMONIA.

BEING AN ABSTRACT OF A PAPER READ AT THE NEW YORK ACADEMY OF MEDICINE.

By W. H. THOMSON, M D.,
OF NEW YORK.

In an interesting communication on the Pathology of Pneumonia, read at a recent meeting of the Academy by Dr. W. H. Draper, we understood the writer to advocate the theory that pneumonia is the result of the presence in the blood of a poison which Nature seeks to get rid of through elimination effected by means of the inflammatory exudation which fills the air-cells.

This view of pneumonia involves the acceptance of several theories, which, if accepted, cannot fail of wide application; for if they are true principles, it is hard to see why they belong only to the lungs, or that, having by them explained pneumonia, we should deny their operation in the other exudative inflammations which we find localized in certain organs or parts of the body. Pneumonia, as the chief local inflammation of pathology, may be fairly termed the great type of such affections. Whatever its etiology, or whatever its special features, arising from the peculiar tissue which it affects, it is still a true acute inflammation; so that the physician who thoroughly understands this disease, must equally understand the principles of inflammatory diseases in general. It was the common recognition of this fact in the profession which gave its importance to the discussion of its treatment which has been so prevalent of late years. Accordingly, when the view of its pathology advocated by Dr. Draper is advanced, we think we do not misrepresent it when we state it as a general proposition thus: Given an idiopathic, inflammatory exudation from the blood-vessels into the proper tissue of a part, Nature, in such case, has found a poison in the blood whose presence would be more perilous elsewhere; and therefore she institutes the process of inflammation in this tissue for the purpose of eliminating it from the blood and depositing it there, the whole forming an illustration of Nature's conservative powers. The exudation being an elimination, it would be an error to arrest it; for the more completely Nature eliminates, the better, and we should aim to assist her to go through the steps of her conservative process with as little hindrance as possible.

Were we convinced of the truth of this theory, we think it would be inevitable that thereafter the commonest ideas in our minds at the bedside would be two—poison as to etiology, and elimination as regards treatment. But preliminary to the adoption of any of these conclusions, it is necessary to have a clear knowledge of elimination itself; and if it appears, on examination, that the whole theory of elimination in disease as at present generally held, is in a great degree conjectural, even when applied to the action of the glands, whose function is eliminative in health, it seems sheer speculation to deduce from the presence of a pneumonic exudation: 1st, an eliminative act; 2d, therefore a proper poison to be eliminated; and then based on this, 3d, that if the eliminative glands cannot remove an injurious substance, Nature sets to inflaming some organ whose tissue will, when inflamed, best eliminate it.

I. The general theory of elimination, it is justly argued, appears probable from its analogies to a real and important function of life. The blood is constantly freed of certain ingredients which, were they not at once eliminated by the emunctory glands, would act as poisons and produce disease. It is not difficult, therefore, to suppose that if a materies morbi of any kind is causing disease in the system, Nature has the same power to get rid of it, and in the same way that she gets rid of the ordinary poisons. It does not, therefore, seem to be an unreasonable inference that the converse of this is equally true—namely, that when we have an apparently idiopathic disease, it is caused by a poison which Nature is striving to eliminate. This conception of elimination in disease, derived from elimination in health, is one of the most prevalent ideas in modern pathology; and it is as customary to recognise eliminative processes in pathological symptoms or states, as it was in the sixteenth century to perceive in the same conditions the working of animal spirits and humors. The study of this theory, therefore, cannot lack either in interest or importance, for besides other applications, we find it made to explain even the deep problem of hereditary structural diseases, the elements of which existed in the microscopic primordial cell, equally with that something which determined the shape of the future nose or mouth. Thus Simon speaks of cancer as "an eliminative act of Nature," and several writers assert the same of tubercular deposits. The most marked nervous diseases also find their places within the extensive territory of this theory; for Dr. Todd discerns the cause of epilepsy itself in a disordered venal elimination.

But it seems calculated to awaken suspicion to find that the main support of this great theory is upon analogy. Nothing can be *proved* by analogies, however indefinitely they may be multiplied; and meantime it is instructive to note how few well ascertained facts can be pressed into its service. It is only in one or two forms of chronic mineral poisoning, as the elimination of lead by iodide of potassium, that we are able to remove a poison by a measure of our own. On the other hand, and in striking contrast with these rare instances, we often find the process of elimination fail signally in practice both when it is most pressingly needed, and when, according to theory, it should best show its powers; so that experience teaches us to expect aid from quite other vital processes of the system. Thus, instead of reasoning about a supposed toxic agent settling in the lungs, but which has never yet been found, let us begin with an instance in which we know that a true and palpable poison, bought by measure, has just entered the circulation. Now in practice we rarely attempt to free the blood of such a poison, for the good reason that we have no means of doing so; but when once assured that it has entered the blood and is beyond the reach of emetics, our whole efforts are directed to the *nervous*, rather than to the glandular system—brandy and ammonia for a snake-bite; coffee, belladonna, and perhaps whipping, for opium. It may be replied that these measures have for their intention simply to support the nervous system until the eliminating glands have removed the poison; but to this it can be answered that the secretions remove too small a proportion of the poison, and too slowly also, to ascribe the recovery to elimination; while many of them become innoxious by being decomposed in the circulating fluid, and are therefore never eliminated in the secretions. That the salvation from the poison is due to living resistance and not to elimination, is shown, we think, by such questions as these: Is it owing to the great activity of the eliminating glands, or is it from the peculiar state of the nervous system, that some patients can bear enormous doses of opium while suffering from intense pain? Does cancer uteri, for instance, so promote elimination that no more effect was produced in some recorded cases by a pint of laudanum, than is ordinarily produced by twenty-five drops?

But these considerations press upon us still more closely when we note that we almost never think of resorting to elimination in the treatment of what are acknowledged as *atmospheric* poisons. Thus in a case of ague, we will neither sweat nor purge. We seek for aid, instead, from the most powerful nervine tonics we can find, such as quinine, arsenic, or the vegetable bitters, etc. Experience does not leave us to guess that, against real animal or malarial poisons, a vigorous vitality to resist their influence is of much more importance than the most perfect elimination by the glands—for, eliminate the poison *they* will not; every purgative, diuretic, and diaphoretic, failing equally to counteract a malaria, or cure a hospital gangrene. On the contrary, these agents are positively mischievous; for we can secure their action only at the expense of that life-power which is, after all, our main-stay against death in any form.

Let us also glance briefly at the meaning of the treatment by which we now try to counteract a great animal poison—that of syphilis. Formerly it was thought that mercury was beneficial, from its eliminative properties; so that Boerhaave advised the practitioner to obtain three or four pounds of saliva a day from his patient. This was certainly giving elimination a fair chance; but we suspect that the doctor who, in our day, would attempt this, instead of eliminating syphilis, would introduce into the case a no less curse in the shape of a lawyer! Our efforts, rather, under an improved pathology, are to prevent the mercurial from going out either by the bowel or by the mouth, hoping thereby to produce the same effect on this disease that small doses of arsenic produce in a case of lepra; an effect whose mode is equally unknown to us in either case, and which we do not term eliminative, but alterative. Meantime, instead of any evacuating or depleting agent, we seek to tone up the system by every means in our power. The conception of the syphilitic poison which the theory of elimination requires, is that of a definite ingredient in the circulation which causes one of its characteristic lesions here, and another there; and that the patient's recovery is owing to the removal of the last appreciable particle of this material from the blood. But we often find the disease reappearing upon some breakdown of health, years after the poison was thought to have been eliminated. Was this because the poison went on year by year, being secretly and constantly reproduced, and as constantly eliminated, until, the glands failing, syphilis again poisoned the system; or was it because this agent develops into an evil impress on the essence itself of physical life, to be felt to the third and fourth generation, but which remains concealed, while a strong vitality withstands the old infection, until, when a weakening influence prevents longer resistance, the working of the curse once more appears? For how as to hereditary infection? Is the syphilis in the aborted fœtus, or which speaks for itself in the growth of a miserable child, and which, in both cases, came from the father at the moment of conception,—does such syphilis show that, from deficient elimination on the part of the parent's intestines, or liver, or saliva, or skin, an atom of this poison pervaded the primitive vesicle?

We do not wish to be understood as denying to the function of the eliminative glands an important share in the recovery from disease. On the contrary, it is most desirable to secure them from interruption in their action while the system is laboring under abnormal and adverse conditions. What we consider to be an erroneous deduction is, that we can by them eliminate either the diseases themselves, or their proximate causes. Their action we conceive to be, in the majority of cases, simply the same as in health—namely, to remove the waste of the tissues, and in this office they are often as much disturbed or impeded by the disease, as is the case with any other function of the body. A patient with pneumonia cannot think, digest, or walk as usual, but neither can he eliminate as usual by his lungs, skin, intestines, or kidneys. Meantime, increased heat and other symptoms show that more tissue is being consumed, so that the waste products are accumulating more rapidly than usual. With more waste and less removal, it is easy to see that we have a serious complication apart from the original disease; and the benefit, therefore, from eliminative medicines is not because they eliminate the special disease, but from their bringing up the glands to their necessary duty. Accordingly, what we do find in the excretions in disease, is just of the same nature as at other times. We find no new specific addition from scarlatina, for instance, or from rheumatism. But, according to the elimination theory, the materies morbi itself is excreted; for, were it not carried out as urea, for example, but decomposed in the blood, then it cannot be said to be eliminated. Now, in the case of the urine, we have an important excretion, coming without foreign admixture, direct from the circulation; an excretion easily examined, and to whose examination much careful chemistry has been directed. What has been the result as to the diagnosis of disease through this great channel of elimination? Will any one, from examining a particular turbid specimen loaded with urates, tell us whether it come from a convalescent from small-pox, or typhus, or pneumonia, or from over-eating? In either case all that is, and we believe all that can be found, is a larger proportion of solids derived from an increased waste of tissue; and therefore to propose to cut short a disease by trying to eliminate it by the kidneys, is like attempting to put out a fire by diligently removing the ashes.

We now come, in conclusion, to the alleged eliminative function of inflammatory exudations. As in the case of gland elimination, this belief in the beneficent character of a suppurative inflammation is both ancient and popular. This very day we have had an old English lady object to our meddling with a whitlow, lest the naughtiness in the blood, as she expressed it, would break out in a worse place. We remember that when, many years ago, we were tormented, we were consoled on similar authority that boils were healthy; and it is well known how at water-cures the patients congratulate themselves on the first promise of a good crop of Job's sores. But we must now beg to differ with this pathology, and to suspect that, as in the case of the patriarch, they come from a bad quarter, and have no good intention about them; so that the sooner we stop them, the better. We can certainly, in practice, arrest their development, not only without a sign of internal mischief, but with positive advantage to the patient; while, according to the theory, we should recognise even in an extensive carbuncle, a preferable condition to what would have otherwise happened. This belief in the curative and depurative character of these superficial inflammations, is, we conceive, now the exclusive property of the hydropathists, and has been abandoned by all pathologists. It is, we confess, therefore not without misgiving that we find the same theory, having been driven from the surface, strike inwards; so that we are at present informed that the most serious inflammations of internal organs are nothing more or less than efforts by that wise goddess, Nature, to get rid of a blood poison! For what else does the elimination theory of pneumonia demand of us, but to recognise in a solidified lung, a great and perilous boil? for it is claimed to be essentially a great exudation, caused by inflammation, which was caused by Nature, to remove in

this exudation a materies morbi which preëxisted in the blood. If this is so, we cannot recognise too clearly the important fact, for by it we learn the true nature of much disease besides pneumonia. Thus, out of a certain number of patients who are admitted into a hospital, all sick from the same exposure to an eastern storm, the first has pneumonia or pleurisy; the second, cystitis; the third, general rheumatism; another inflammation of the bowels; and another acute nephritis. What is the connecting link between so many internal inflammations produced by the same cause? Our pathologist answers, we have here certainly a blood poison, generated most likely by suppression of the excretions of the skin, and circulating everywhere, till perturbed Nature sends it to be thrown out in one case by the lungs, in the other case by the kidneys. We ask, is it also sent for elimination to the mucous surface of the bladder, or to the lining membrane of the heart? Is it not rather due to a general alteration in the blood and in the functions, whose effect is therefore manifested in these parts, which have relatively less power to resist the injurious influence of such alteration, than due to an erratic effort of Nature at elimination. For, let us cite another instance:

A laboring man meets with an accident which presents the surgeon with a case of compound fracture of the thigh. On the third or fourth day, along with the reaction and strong inflammation set up in the injured limb, the patient passes into a raving delirium. Very soon a watchful observation reveals the dreaded presence of a surgical pneumonia? Now what is this pneumonia. Is it from pyæmia? Certainly not, for a sufficient time has not elapsed for a true septic infection. The inflammation about the fractured bones in the thigh is not eliminating anything in particular; why is the same inflammatory process going on in the lung, and which would have never occurred any more than the swelling of the leg, but for the accident, an eliminative and conservative process of nature?

This elimination theory is, in fact, based on the *word* Nature, which is nothing more than a word; for in itself it can no more be the cause or explanation of anything, than such words as catalysis or allotropism can be explanations of chemical phenomena. Thus, let us examine the idea of the intelligently conservative course of Nature in creating a pneumonia. Is it conservative to choke up such an organ as the lung with a depurative exudation? Is it true that the more extensive and complete the solidification, the better the blood is cleared from a dangerous ingredient? We ask, what worse mischief could it do anywhere else? We think that, if the pneumonia poison were circulating in us, we would rather not have it eliminated at all, but take our chances; for it is hard to see what more undesirable place it could find to settle in than the air-cells, unless it went to the brain. But, after all, we are not sure that the elimination theory will not follow us even there, so that we will find our pathologist, as he stands by a case of encephalitis, admiringly contemplate the conservative processes of Nature, in getting rid of a blood poison. All we can say is, that such pathological conservatism reminds us of the familiar political conservatism which was so anxious for the preservation of the Constitution of the United States as to advocate a general secession.

Additional Powers Conferred upon the Metropolitan Board of Health.—A bill, conferring upon the Metropolitan Board of Health the exclusive power to grant licenses for the sale of liquors within the said district, was passed by the Legislature, March 29, 1863.

A CASE OF

ENTIRE DISLOCATION OF THE CLAVICLE.

By N. L. NORTH, M.D.,
BROOKLYN, NEW YORK.

On the 26th of January, 1863, I was called upon by Mr. M., who stated that his son, a boy of about fourteen years of age, during his sports with his playmates, had been thrown backwards from a stool or slight eminence, upon which he had been placed, and came down striking with his whole weight upon the back of his left shoulder.

Upon examination, I found as a result of the fall a deformity as follows:

The shoulder depressed and thrown forwards; the centre of the clavicle fallen in as if fractured, with an abrupt, rounded prominence at the sterno-clavicular articulation, and a sharp, prominent ridge on the top of the shoulder, standing some three-fourths of an inch above the superior point of the acromion process, and running from that process towards the neck for about an inch, then gradually tapering down to the usual form of the neck. The boy complained of a great amount of pain and considerable difficulty of breathing.

The father, expressing great anxiety, asked if something could not be done to relieve his son.

My examination of the case led me to the inevitable conclusion that the cause of the deformity was an *entire dislocation of the clavicle without fracture*, both ends, with of course the entire bone, having been slipped, or more expressively, "popped" out by the force of the blow or fall upon the shoulder, and then drawn half way over forwards and downwards by the action of the large pectoral and deltoid muscles. The round prominence in front was caused by the turning *out* of the sternal end of the bone, and the sharp ridge on the top of the shoulder was caused by the turning *up* of the trapezoid portion, while the depression in the centre was the effect of the turning *down* of the convexity at the middle portion of the clavicle.

I adopted a treatment as follows: Forcibly throwing the shoulders backwards, and retaining them in position with long strips of adhesive plaster applied in the form of the figure of 8-bandage, I then made compression with my right thumb and finger backwards and downwards upon the trapezoid portion of the clavicle; and at the same time, with the thumb and finger of my left hand upon the sternal end of the bone, made firm pressure upwards and backwards. I had the satisfaction of *feeling* the ends of the bone return to their normal positions, and of *seeing* the supposed *fractured* portion of the bone round up in its position, completely restoring the proper shape and symmetry of the parts. I then applied compresses successively to each end of the bone, retaining them by means of adhesive straps; and as a help to my dressings, and to assist in retaining the whole in position, I applied Day's "neck-yoke" apparatus for fractured clavicle. In the course of two weeks I cautiously commenced loosening the dressings, and at the end of three weeks I removed them altogether and discharged the patient well—since which time he has had no difficulty whatever with the shoulder, and there is now but little if any trace of the accident remaining.

Since his recovery the patient has been seen by a considerable number of medical gentlemen, among whom I may mention Prof. W. Parker of the College of Physicians and Surgeons.

The above I consider as a rare case, as I have not in my reading been able to find a record of a similar case; and I have yet to meet the surgeon who has

seen and recognised any other example of an entire dislocation of the clavicle without fracture.

A CASE OF STRANGULATED CONGENITAL INGUINAL HERNIA IN THE FEMALE.

SUCCESSFULLY OPERATED UPON

By JAMES H. ARMSBY, M.D.,

PROFESSOR OF ANATOMY IN THE ALBANY MEDICAL COLLEGE.

The patient was a child, three years old, a daughter of Mr. S. C. Foster, of Rensselaer Co., N. Y. Immediately after her birth, it was discovered that she had *inguinal hernia* on the right side, and by the advice of the attending physician her parents procured a truss, which was applied, and appeared to answer the required purpose.

On the morning of the 3d of January I was called upon to visit the child by Dr. Allen, of Greenbush. On examination, the hernia was found presenting directly over the pubic extremity of Poupart's ligament. Attempts had been made to reduce it, but without success, and anodynes and warm fomentations had been ordered.

It was now seventy-two hours since the first symptoms of strangulation had appeared, and the child's condition was extremely serious. She was greatly debilitated by the pain and constant vomiting, was perspiring profusely, her expression was pale and cadaverous, and her pulse was 160.

The operation was immediately performed in the way ordinarily practised for strangulated hernia in the adult. The parts were greatly swollen and congested, and about three inches of the ileum, not far from the *caput coli*, were found protruding, completely strangulated and *gangrenous*. The portion of intestine involved adhered firmly to the sac and surrounding soft parts, and was soft and partially disorganized.

Seeing no chance for any other result than an artificial anus, I left the gangrenous portion of intestine as I found it, and applied a linseed-meal poultice. Before the next morning it separated, and fæcal matter escaped freely at the opening. Contrary to my expectations, the patient improved rapidly under the use of anodynes and tonics; the wound gradually contracting until the twelfth day after the operation, when she had a natural evacuation from the bowels, and no more fæcal discharge from the opening. The wound healed kindly, and one month after the operation the cicatrization was perfect, and the patient restored to her usual health.

I have never before met with a case of congenital inguinal hernia in the female; and I think such cases must be rare, as Dr. March informs me he has never seen one, and does not remember ever having heard of such a case before. Several medical gentlemen were present at the operation, and we were all convinced that from three to three and a half inches of the entire intestine was included in the stricture, and came away by sloughing.

The efforts and results of Nature, in forming the new channel, illustrate her power and fertility of resource.

Mr. Baker Brown has just been elected a member of the Medical Society of Christiania, in recognition of his services in operative surgery.—*Lancet.*

Decline of the Cattle Plague.—The cattle plague is reported to be on the decline in England.

Original Lectures.

ON CHOLERA.

By A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.

Lecture III.

The Theories in regard to the Origin and Spread of Cholera. How is this Poison introduced into the System, and how does it operate after it has been introduced? The Character and Composition of the Vomit and Evacuations.

In the consideration of cholera, the next point which may occupy our attention is its cause, and the mode in which that cause operates upon the system. There are various theories in regard to the origin and spread of the disease. One of these assumes that it is contagious, communicable from person to person—that it is a zymotic disease; that the zyma or ferment is the special cholera poison, that it finds its way into the blood, and then rapidly causes zymosis (fermentation), thus multiplying itself; then not only produces that terrible commotion in the individual which we have lately reviewed, but also diffuses itself in the air which surrounds him, to be received into the bodies of other persons and work the same mischief in them, and in them again to be reproduced.

Another view is that the disease depends upon some peculiar condition of the atmosphere, denominated "epidemic constitution;" and that this epidemic constitution of the air is widely diffused over a given country; but of itself alone, while it predisposes to cholera, does not produce it, requiring the aid of certain local influences, or "localizing conditions," these localizing conditions being filth, crowding, and other well known sources of insalubrity.

Another theory, that of Dr. Snow, assumes that the disease is a communicable one, but communicable in a particular way. He thinks that the poison is produced in the alimentary canal, and that it is voided with the evacuations, and that these evacuations may contaminate the water that we drink, or by unclean hands the food that we eat; and so the poison comes in contact with the intestinal mucous surfaces, and directly provokes the cholera symptoms. In this view physicians are less liable to cholera than nurses, because they are more likely to eat with washed hands.

Dr. Thiersch attempts to show that the cholera discharges are not poisonous when they are first voided; but that after a certain length of time, from three to five days, if the temperature be anywhere in the neighborhood of fifty degrees Fahrenheit or above, they undergo a fermentation or decomposition, and that in this state they are poisonous and will reproduce cholera. He assumes that after a given time, six or eight days, this fermentation has ceased, and the evacuations have then become innocuous.

The views of Prof. Pettenkofer on the propagation of the disease are now attracting particular attention. He does not admit that the alvine evacuations are poisonous when first discharged; nor yet that they of themselves undergo any fermentation or change of any kind that makes them so, but that the poison is the result of two distinct agencies—the discharges and the soil. In the words of Dr. Weber, an expounder of this doctrine,—for the epidemic spread of cholera, "the only indispensable conditions are human intercourse, yielding the germ in the excretions of cholera patients, and the soil develop-

ing the germ into activity. The qualities of soil considered necessary for the development of the cholera germ are: 1st, that it be porous—that is, permeable to air and water; 2d, that water exist at a certain depth below the surface (ground water or subsoil water); 3d, that the soil be to some degree impregnated with the products of organic decomposition, especially those of excrementitious origin." In this view it is understood that all the members of the large Bavarian Commission for the investigation of cholera, in 1854, concur. It is stated that they found the disease prevailing epidemically only on such soils as are here described; that localities of "impermeable rock were either entirely exempt or only exhibited isolated cases." Temperature, the dryness or moisture of the atmosphere, and elevation of site, are of little importance. The intestinal secretion and the soil are the parents of this hideous offspring. The moisture required for this generation is derived by inbibition and evaporation from the "ground-water;" by which term I understand the water that supplies wells and springs, which is at different depths in different places, and in the same place at different times, "from about five to fifty feet," "the first *stratum of water* beneath the surface." The theory claims that where this "stratum of water" is nearest the surface of the ground, there the soil is most prolific of the poison; that elevation is of no avail, unless the layer of earth underneath the soil, which is impenetrable to water, has less acclivity than the surface, leaving the "ground-water" on the hill at a greater depth than in the valley; that the period of the subsiding of the "ground-water" is the most dangerous, the time of the greatest activity in the soil agencies, and that this subsidence usually occurs in July, August, or September, when cholera is commonly most prevalent, if not most fatal, or in the words of Dr. Weber, "makes its greatest ravages."

There is also a theory claiming that the presence of cholera depends upon the influence, negative or positive, of ozone; another, that it depends upon the withdrawal of a considerable portion of the atmospheric electricity; still another, that it has a fungous origin. The fungus, according to Dr. Mitchell, is produced outside the body; and its spores, or some other emanations from it, enter on the breath and so produce their poisonous effects. According to Messrs. Brittan and Swayne, there is a "cholera fungus." It is assumed that this is generated in the intestinal canal, and that when it is discharged it is capable of reproducing the disease if it enters another human body. This hypothesis, if admitted, would give precision, and perhaps demonstration, to Dr. Snow's theory.

One other theory is to be considered. It is the doctrine of the miasmatic origin of cholera. It recognises a zyma and zymosis, not within the human body, but in the air or in the soil. It looks upon the cholera poison as having an origin analogous to the origin of the miasm which produces yellow fever. You will pardon me, therefore, if I make a digression for the purpose of illustrating this opinion. Yellow fever is not a spontaneous disease in the Northern cities of the United States. It never has occurred in New York, or Philadelphia, or Norfolk, except when its own particular miasm, generated elsewhere, has been brought to those cities. It has not always, or perhaps commonly, spread or become epidemic, even when infected ships have brought the poison into their several harbors. The air of the ship may be noxious, and those who go on board and breathe the atmosphere of the cabin or hold may contract yellow fever; but that the outside air become poisonous, certain conditions are necessary. What these conditions are, is not perfectly known; but being present, the poisonous air of the ship becomes a ferment, and, by some catalysis in the earth or air, produces its like. Then is yellow fever epidemic, and continues to be so while these conditions remain. This doctrine seems to be as nearly demonstrated in the Northern cities as any medical doctrine can be; and for New Orleans, Mobile, Charleston, Savannah, and other Southern towns, the last five years have done much to enforce and illustrate its truth. In the same way it is believed cholera may be produced and diffused. Not that there is any approach to identity in the composition and character of the two poisons when generated, but that the process by which they are generated is analogous. Here the parallel ends. This theory embraces another element entirely unknown to any hypothesis applicable to the cause of yellow fever. It assumes an "epidemic constitution" which generally goes before and announces the coming of cholera, and that by this particular state or condition of the air, or earth, or electricity, or ozone, or whatever else it may be, there is produced a predisposition to an attack. It also recognises "localizing conditions," or insalubrity, not as a generator of cholera poison directly, but as loading the air with other poisons which aid the cholera miasm in its fatal work. What the constitution of this subtle destroyer is, the hypothesis does not attempt to explain. Drs. Baly and Gull think it has a consistence that causes it to adhere to inanimate things, so that with them it can be transported from one place to another.

There are those who believe that cholera is a miasmatic disease in the sense in which I have just used the term, and that it is also contagious.

These, I believe, are the principal views that have been entertained regarding the origin and spread of cholera. All of them recognise a special, perhaps I should say a specific poison; and indeed it seems difficult to survey the history of the affection and not believe that it is produced by a poison of its own.

Now, then, how is this poison introduced into the system; and how does it operate after it has been introduced? I suppose the first of these questions cannot be confidently answered; perhaps through the surface of the body, by absorption; perhaps it is received into the alimentary canal with our food, and is there absorbed; probably it is introduced into the lungs in breathing, and so contaminates the blood. In one way or another it seems to me that this poison does operate first through the blood, and, circulating with it, by some vital affinity, soon begins to produce its specific effects through the nerves of the ganglionic system, and particularly the ganglionic nerves of the abdominal cavity. This, you will say, is a theory. I admit it; but it has the support of a strong probability. I have already told you that the examination of the ganglia of the abdomen has not revealed any constant lesion. Indeed, in the greater number of cases, the statement of observers is, that nothing unnatural has been found. But this does not in any manner invalidate the hypothesis. A thousand changes in the innervation are produced without sensible alteration in the nerve-centres from which these perverted influences emanate. If, for example, an over-dose of strychnine has been taken and absorbed into the blood, it will in a short time manifest its poisonous influence through the medium of the spinal cord; the person dies; you examine this nerve-centre; it appears to be healthy; there may be a little more blood in it than usual, but that is all you can discover. Or it is a poisonous portion of opium; the person dies through the vital affinities of the opium for the brain; you examine, after death, and find the veins of the brain full of blood; but you find nothing else. You call the microscope to your aid, and find the brain cells natural and healthy. And so it will be after the use or abuse of any of the drugs that have what is

called vital affinity for any nervous system or centre. It does not, then, negative the proposition that this portion of the nervous system is the great centre, the *primum mobile*, in the disease, that we cannot discover anatomical changes. You have been informed in another connexion, that when the nervous relations of the eye with the ganglionic system are destroyed, that organ becomes inflamed and is soon disorganized. Electricity may temporarily suspend this destructive process, as it will dissipate the inflammatory hyperæmia. It seems to be the conviction of all physiologists that the circulation in the capillary vessels is greatly under the control of the ganglionic centres; and of the pathologists, that the inflammatory process is dependent on disordered innervation in the same nervous system. The accepted doctrine is, that the more vigorous this nerve force, the more the vessels are contracted; the less forcible the nerve current, the more they will be expanded and congested. If these centres are temporarily paralysed, there will be nothing left to modify and regulate the power of the heart in these expanded and passive tubes. This condition, or an approach to it, is what I believe occurs in cholera. The regulating power is lost, and the blood is poured into the intestinal vessels in an unusual tide, and the transudation of its watery and saline constituents is demonstrated in copious alvine dejections. The stomach is similarly affected in most cases, and the result is substantially the same.

But this is not all. The degree of collapse and depth of prostration are not measured by the loss of the blood constituents alone. The collapse may follow one or two evacuations as well as thirty or forty; may occur indeed, in rare instances (Dr. Gull's case), where there has been no characteristic discharge, and where but little of the rice-water material is found in the alimentary canal after death. In truth, so little is this relation a fixed one, that there are sound observers who regard the discharges as eliminative and salutary; and it is well known that the danger is not proportioned to the number of stools which preceded the collapse, but the reverse, at least within certain limits. There is abundant testimony to sustain the proposition of Prof. Parkes, that "exclusive of the mildest forms of the disease, a case with little vomiting and purging is more malignant and more rapidly fatal than one in which these are prominent symptoms." Then the collapse of cholera differs from the prostration which follows the loss of blood in many important respects. The blueness of the skin, the less frequent pulse, the muscular strength, the sense of burning while the parts are actually cold, the general anæsthesia which affects a few, and especially the rapidity of the recovery when that result occurs, belong to cholera, and make a broad distinction between these two conditions. Dr. Johnson has lately called attention to this point in his Notes on Cholera. There is, then, in the cholera collapse something besides the effects of blood depletion. The marvellous but temporary effects of injecting saline solutions into the veins of the collapsed may seem to argue otherwise. The resuscitation is indeed wonderful; but, whatever may be its bearing as an argument in those who have lost a great deal of the fluid of the blood, it can signify little for those who have not sustained such loss. What shall we say, then? Is there not evidence of great perversion of the ganglionic nerve-force everywhere? Are not the perverted sensations evidence that the cerebro-spinal system feels the effects of the poison, at least secondarily, through its connexions with the sympathetic? To my mind these questions must be answered in the affirmative.

The cramps, at first view, seem to suggest that the spinal cord may be also primarily affected by the poison, or that the muscles are unhealthily stimulated by the poisoned blood; or, as it is sometimes claimed, that the thick blood tardily moving through the vessels, in some way provokes muscular contractions. But neither of these suppositions appears to me called for. It is not many weeks since a member of my own family had cramps of the same kind as those that occur in cholera, and as painful as they are in the cases of average severity, lasting all night and part of the next day, attending undue purgation by one of the common mineral waters. Cramps are a common attendant on our indigenous autumn cholera, although in that disease there are no rice-water discharges, and no collapse—at least none that can be compared to the collapse of the Asiatic cholera. Then, too, in some at least of the rapidly fatal cases of Asiatic cholera, in which the purging is inconsiderable, the involuntary muscular contractions do not occur. These facts, then, point to the nervous connexions of the intestines and the spinal cord, on the one hand, and those of the cord and the muscular system on the other. They pretty clearly show that, but for the diseased action in the alimentary canal, there would be no cramps. The cramps, then, I cannot doubt are the result of reflex excitement and reflex action.

It does not appear, perhaps, when a person dies in eight, ten, or twenty hours, that there is an inflammatory element in the intestinal hyperæmia—that it is not a mere passive congestion; but if you will recur to those illustrations and specimens exhibited at our last meeting, it seems to me that you cannot fail to persuade yourselves that the end of this diseased action is a kind of inflammation. It yields no organizable product; there is rarely any purulent matter; but there is an action analogous to that in œdematous laryngitis, and to that in diphtheria. There is the forcible distension of solitary glands. You say this may occur from mere imbibition. I do not think so. It never occurs when the intestines are filled with fluid, and there is no hyperæmic action. It occurs in small-pox, but not without inflammatory injection of the mucous membrane. Authorities are not wanting in support of this view. As early as 1832 the late Prof. Horner, of Philadelphia, recognised it; at least, I so interpret the long and valuable paper which he wrote on the cholera of that year. He observed the membranous patches and the enlarged glands. Cruveilhier, whose illustrations of lesions in the disease you examined when we last met, at the same early period, hardly falls short of admitting it. He says: "Anatomy and pathological physiology unite in demonstrating, in a manner not less peremptory, the *great affinity* which exists between the mode of fluxion which results in the seromucous secretions of cholera and the mode of fluxion which constitutes inflammation; so much so, that many individuals who die of cholera after reaction, exhibit unequivocal traces of inflammation." But I will not quote opinions; I prefer to leave on your minds the influence of facts already presented, which, as they are the only basis of opinion, are above all written authorities.

I now return to Dr. Johnson. You will remember that while I called attention to the question of the extreme anæmia of the lungs in the stage of collapse, I was not able to cite authority beyond that of Dr. Johnson himself, which was conclusive. But the other cardinal fact of his theory, the fulness of the right cavities of the heart, must be admitted. It has been noticed from the first pathological examination of the disease. Dr. Johnson, considering these two points as settled, claims that "the arrest of the blood in the branches of the pulmonary artery," "the minute branches, *before* it

reaches the pulmonary capillaries," "is the true key to the pathology of the choleraic collapse." "The blood," he says, "contains a poison whose irritant action upon the muscular tissue is shown by the painful cramps it occasions; the blood thus poisoned excites contraction of the muscular walls of the minute pulmonary arteries, the effect of which is to diminish, and in fatal cases entirely to arrest, the flow of blood through the lungs." This doctrine he thinks explains the fact that blood, in many cases, does not flow from severed arteries—the blueness and coldness of the body, the sunken eye, the shrivelled features, the feebleness of the pulse, the suppression of bile and urine, and the continuance of the secretion in the female breasts. This last fact he accounts for thus. The chief constituents of milk "may be obtained from the blood without the addition of oxygen. The secretion of milk, therefore, continues during the stage of collapse, while the highly oxygenized secretions are suspended." He claims for his theory the support of experiment. A dog is killed by injecting into his veins a concentrated solution of salt and soda, or a few grains of the nitrate of silver in solution; the right cavities of the heart are found distended, the left nearly empty (Blake), &c. But I have stated enough of this new view of the cholera collapse to interest you in the perusal of the "Notes on the Pathology and Treatment of Cholera," which you will find written with great thoughtfulness and ability. The theory must be subjected to the test of new pathological researches.

Postponing for a short time the more critical examination of the theories which claim to explain the propagation of cholera, we turn now to examine a little more closely the evacuations derived from the blood. The vomit has not always the appearance of "rice-water;" as I have already intimated, it is variable in color, sometimes green, sometimes of a dark hue, sometimes yellow. With reference to its chemical reaction, one of the striking things that I have nowhere seen taken particular notice of, is the tendency in the discharges and fluids of the body to become acid. You would expect to find an acid fluid in the stomach; and in all instances where the vomit has been examined, it has been found either acid or neutral, never alkaline. Becquerel found in one instance in the vomited fluid as much as thirty-one parts of albumen in the thousand; but in five other examinations it was found in proportions varying from a trace to eighteen and a half parts in the thousand. In this respect the fluid vomited is far from having the constitution of the serum of the blood, taking that which results from spontaneous coagulation as the standard. The chloride of sodium was found in the proportion of from two and a half to eight and a quarter parts in the thousand in the fluid. Thus this constituent was sometimes but little more than half as much as is found in healthy serum, and sometimes twice as much. But the great part of the material ejected is water. In a single instance the same observer found the water to amount to only nine hundred and thirty-one parts in the thousand, leaving sixty-nine for the solid matters. But in general the quantity of water varied from nine hundred and fifty to nine hundred and ninety-one parts; so that the water in proportion to the solids exceeds, and in most cases very greatly exceeds, the water of the serum.

With reference to the stools, they were found to contain from nine hundred and seventy-eight to nine hundred and eighty-eight parts of water in the thousand, preserving a more even average than does the material rejected from the stomach. Common salt has been found with great uniformity in the dejections. Dr. Hutchinson found it in considerable quantity. Becquerel, in four examinations, makes the proportion $3\frac{7}{10}$ to $7\frac{8}{10}$ in the thousand parts. Albumen has not generally been discovered in this fluid. A trace of it has been reported. Becquerel found in one instance $4\frac{5}{10}$ in the thousand parts, but in general there is nothing that responds to the tests of heat and nitric acid, or that has been recognised as albumen by the greater number of observers. M. Mialhè reports that the albuminous element is to be found in the evacuations in the form of albuminose; and he discovers it, not by the tests usually employed for the detection of albumen, but by alcohol, the salts of lead, mercury, and silver, and he asserts that the quantity is considerable. He regards the transformed albumen as the product of a change in the albumen and fibrin of the blood and of the tissue metamorphosis. M. Baudrimont, in a paper lately read before the Academy of Sciences, Paris (*Richmond Med. Jour.*, March, 1866), seems to have found albuminoid matter in the evacuation, and thinks that it has the character and gave the reacts of *diastase*, such as is formed in malted barley, and he seems to have concluded that this diastase had taken the place of albumen even in the blood. These chemical points are not in the line of my present studies, and I cannot aid you much in judging of their correctness. All new opinions should, however, be received with caution, especially if they have a practical bearing. This at least may be inferred from these chemical examinations, that the evacuations are not composed of the liquor sanguinis, nor yet of serum as it is found after the coagulation of blood, but that their chief ingredient is water derived from the blood, containing certain saline matters, of which common salt is the most abundant, the proportion being generally greater than in the healthy blood. The phosphates of lime and soda and sulphates are discovered, but each in proportion less than one part in the thousand, and carbonates in scarcely appreciable quantity. We further learn that the draft made on the albumen of the blood is not very heavy, since all the solid matter in the filtered discharges is not above eight to fifteen parts (Becquerel), and the saline substances constitute a large portion of this; while in the healthy blood the albumen is rated as about seventy parts in the thousand.

Bile has generally not been found in the choleraic evacuations. Almost every observer who has turned his attention to this particular point has failed to find it. Prof. Parkes, of London, following some investigations of Mr. Simon, has come to a different result. He states that there is bile in the evacuations of cholera at all times except during the very height of the disease, but that it is found in a modified condition; that it does not give the usual colors upon the application of nitric acid, but that it does give a pink, violet, or purple color when nitric acid in small quantity and heat are used together. He says he has found this same condition of the bile in the fluid discharges of typhoid fever with a good deal of uniformity; that he has occasionally found it in other conditions of disease, and even in the healthy evacuations.

An interesting little study has been made quite lately, quoted in the last number of the *Journal of Medical Sciences*, by Dr. George Johnson, regarding the nature of that material which gives the opaline or milky appearance to the choleraic discharges. Dr. Johnson reports that all that whitish material that is seen in the rice-water discharges is epithelium in flakes, or single cells, which seems to have exfoliated from the alimentary canal. I have already told you that this epithelium is dislodged early in the disease, as it is in other inflammatory processes; and this observation of Dr. Johnson is supported by a reputation which will not permit us to doubt its correctness.

He further says that the quantity of epithelium is so very large, that there must be, during the cholera process, a power of reproducing it as it is removed; and then suggests that it is possible this reproduction, layer after layer, is one of the agencies by which the special poison is to be eliminated from the body.

The choleraic discharges are not, like the natural discharges from the intestinal canal, always alkaline; in the majority of cases they are found to be either neutral or acid. In yellow fever there is a period that Dr. Blair, of Demerara, has denominated the period of acid elimination. There seems to be a period of acid reaction in cholera.

The color of those discharges varies, as does the color of the discharges from the stomach. They are not all "rice-water," but are frequently dark, frequently yellow, and may be of a mahogany color. Dr. Hutchinson found in ninety-three cases observed in the last epidemic, that thirty-six had yellow or mahogany-colored discharges; and that among them there was the greatest mortality. The stools are not always fluid. I remember a fatal case, occurring in the epidemic of 1854, in which they had the consistence of a soft jelly, and the color of boiled starch. Among the most fatal cases are those in which the blood, staining the dejections, gives them a brighter color than it does to the mahogany discharges; these have been called "red-currant-jelly stools."

The increased specific gravity of the blood, and the increased proportion of solid to fluid matter; its tenacious character, its dark color, and its imperfect coagulation in cholera—are points which require no further investigation. But beyond these, there are some facts which we may profitably consider. Dr. Stevens, when he proposed the saline treatment, believed that the salts were greatly withdrawn by the discharges. Dr. O'Shaughnessy came to the same conclusion from his chemical investigations; but Dr. Garrod, of London, found that there was more weight of saline constituents in the choleraic than in healthy blood, taking pound for pound. In the serum of the healthy blood the total salts are represented in the mean by 5.60 in a thousand parts for males, and 6.80 for females. In choleraic blood 5.70 in the thousand is the lowest proportion obtained by him, and 10.70 the highest. So the proportion appears to be decidedly greater than in the healthy blood. Dr. Robinson, of Edinburgh, infers from his own examination and from others made in that city, that 9.70 : 1000 will best represent the quantity of salines in the blood during the early stage of cholera—9.20 : 1000 in early collapse—9.10 : 1000 in collapse, and 8.40 : 1000 in the reaction. These figures do not indicate proportional reduction in any stage, but rather excess in all. The comparative reduction in the period of reaction is probably due to the partial restitution of water at a stage when fluids are again tolerated by the stomach. This would seem to suggest that the saline treatment is not necessary, at least for the replacement of the salts. The chloride of sodium is drawn off in largest quantity, and it may appear that while the other salts abound, there is deficiency in this. Becquerel, however, found in two examinations of cholera blood that the proportion, even for the chloride of sodium, was high, viz. 6.61 : 1000.

That there should be chloride of sodium in the dejections, often in larger proportions than are found in the healthy blood, and yet that the blood from which it is withdrawn is still overcharged with this salt, would hardly be looked for. The urine, in health, is constantly abstracting it from the circulating fluid, at the rate of about five parts per thousand of the secretion, or about one-seventh of an ounce a day. The suspension of this secretion would account for some accumulation in the blood, if there were no other outlet for it. The water, yielded by the blood for the dejections and matters vomited, appears to carry with it its full proportion; for, though sometimes less, it is often more. Will the suppression of urine, then, account for the supposed excess in cholera blood? Or is Becquerel's report to be revised. Corenwinder gives the results of four examinations of cholera blood taken from the body after death, as follows:

Chloride of sodium,		1.85,	water,	543.28
"	"	2.74	"	751.10
"	"	2.12	"	751.10
"	"	0.69	"	710.00

The question of deficiency or excess, then, so far as the common salt is concerned, is not definitively settled.

Another interesting point associated with what I have already stated in regard to the chemical reaction of the fluids, is that the blood itself often becomes neutral, and even acid. I need not tell you that its natural reaction is alkaline. It has been generally assumed that this alkaline condition is preserved by the carbonate of soda, and that it is lost by the withdrawal of this salt. Dr. Garrod expresses doubt regarding the existence of this carbonate in healthy blood, and thinks it more likely that the alkalinity is preserved by the tri-basic phosphate of soda, and that that salt may undergo such changes in constitution as to produce the neutral or acid state.

The presence of albumen or albuminoid matters in the evacuations must diminish the absolute quantity of albumen in the circulation; but whether this loss disturbs the proportions in the remaining blood can only be determined by analysis. Becquerel and Garrod both report that in cholera blood the albumen falls below the standard of health. Becquerel found 51.80 and 69.53 parts in the whole blood; Garrod 103 parts in the serum, instead of 125. It appears, then, that the water and the albumen are drained from the blood so as to leave it impoverished as to these constituents, though in very different degrees. This result would hardly be expected in the albumen when we remember how small a proportion of it or its analogues is found in the evacuations, and may lead to further examination of Baudrimont's statement, that the albumen of the blood is converted into diastase. If this is true, the albumen tests may not be adequate to settle the whole question.

Urea is found in the blood of cholera, but not in the early stages. Garrod found it as follows, viz. in one case during collapse, 38 : 1000; after death, 0.92; in another case where, after partial reaction had taken place, the patient had fallen into a semi-comatose state, 0.65; in a third, during reaction, 1.14. The reason offered for the slow accumulation of this substance, after the kidneys have ceased to act, is, that in the shock of cholera the tissue transformations are probably slow, and the amount of urea formed is consequently small. Uræmia, in fact, is the immediate cause of death in only a small proportion of the cases, although it may favor the inflammatory complications of which many die in the fourth stage.

The urine, you are already aware, is suppressed in the great majority of cases when the violent symptoms of cholera begin. It continues to be suppressed until reaction, and it was then found by Dr. Begbie of Edinburgh to be more or less decidedly acid in fifty-nine out of seventy-two examinations; neutral in seven, and alkaline in six. It was found to be albuminous in fifty-three cases out of sixty-seven; and contained casts of the secreting tubes of the kidneys in twenty-four out

of sixty-four. In almost all, he says, there appeared to be broken fragments of casts, which are quite as significant as unbroken casts; so that it is fair to infer that there is a process going on analogous to that which, when confirmed and completed, constitutes Bright's disease. The urine contained bile in forty-three cases, the indications being decided in twenty-eight out of sixty-eight. The urea is materially diminished. Dr. Begbie assumes that thirty parts in the thousand is the normal quantity of urea in urine; and he finds in nine cases of cholera the quantities to be severally twenty-eight, twenty, nineteen, eighteen, eleven, ten, nine, eight, and one-and-a-half; in most, very materially, and in some only moderately diminished. These examinations were almost always made in the first of reaction, when the urine was beginning again to be secreted; in a few instances it was drawn by a catheter after death. The specific gravity varied between the minimum, 1007, and the maximum, 1045; in the greater number it was about 1012. This author reports that, as the urine became more abundant in this stage of reaction, the albumen disappeared, showing, it would seem, that its presence was the result of the choleraic shock; and yet I see it stated that M. De Wouves "has *demonstrated* that albumen can be found in the urine of *all* cholera patients some days before the more serious symptoms exhibit themselves." M. De Wouves must have had rare opportunities, such as few physicians enjoy, to be able to *demonstrate* such a proposition. If it be found to be true, it will certainly be a valuable addition to our knowledge.

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AMERICAN MEDICAL ASSOCIATION.

THE next meeting of the American Medical Association is to be held in the City of Baltimore, on Tuesday, May 1, 1866.

The influence for good which these annual assemblages have upon the profession, is sufficiently manifest. This fact must be admitted by all who have watched the growth of the organization since 1847. Springing into an existence by the efforts of, so to speak, a mere handful of men, it has since then so effectually gained the confidence of the profession, that all important questions are now referred to it, and its code of ethics is universally observed and respected by every well ordered society.

In view of the great benefits which it has already conferred upon the profession the question naturally suggests itself, in connexion with the next meeting, whether this usefulness can be increased.

The answer can be made without much hesitation, when we consider the necessity which has existed since the very foundation of the Association for a proper, efficient, and comprehensive plan of organization. It has long been acknowledged, even by its founders, that the Association has fallen far short of its original design, and the principal reason for this has been confessed to be the want of a remedy for certain defects in its system of government. The objections which are now found to exist in regard to the efficiency of the original plan, could not at the time it was drawn up be foreseen or provided against. It was only after the Association had gained a certain amount of experience in self-government, that these difficulties began to increase, and it was not long since deemed necessary to have the Constitution most thoroughly revised. This task was undertaken by Dr. N. S. Davis, of Chicago, and the alterations which he suggested were adopted at the last meeting.

But even those changes that were made fell short of the full accomplishment of their purpose. Notwithstanding the great care that had been exercised in preparing, as he thought, a model system of government, the attempt was in many respects a failure, as not a few important provisions which are yet to be made, and are absolutely required, were by him overlooked. As an evidence of this fact we might detail the number of amendments which were offered at that very meeting. It is true that only some of these are of great importance, while others refer to minor matters; but taken together, one cannot fail to recognise in them so many forcible arguments in favor of a more thorough re-organization. Not only do these objections to the present Constitution emanate from the members of the body, but we notice that some Medical Societies have taken the matter in hand, have discussed the propriety of offering certain amendments, and have given their delegates instructions in accordance with the decisions arrived at. This has been more particularly the case with the Philadelphia County Medical Society, a detailed account of the action of which has been given in our previous issue by one of our correspondents. The suggestions offered by this body are in the main exceedingly good, and we would commend them to the serious consideration of the members of the Association.

A fundamental change in the Constitution of the Society is much needed, and we are gratified to see so many indications of its being speedily and effectually consummated. There is probably no better opportunity than the coming one for effecting the objects sought after, as the meeting will no doubt be largely attended, and have representatives from every portion of our now united country.

We hope that all who go to the next meeting will prepare themselves for work during the entire session, and that not only this matter which we have more par-

ticularly referred to, but others which may be brought up, will receive due attention and consideration. There is no reason why the coming session should not be an eminently successful and profitable one.

The report of Inspector Newman, recently made to the Board of Health, concerning the condition of certain tenement houses in Mulberry street, is well calculated to give an idea how some of the poor of this city live. The many important points connected with drainage, ventilation, etc., which this communication covers, lead us to quote it entire. He says:

"These buildings consist of two front and one rear building, situated on a lot seventy-five by one hundred and thirty-four feet, which includes the alleys on each side of these houses. The two front buildings are six stories high, each from seven to nine feet in height, built of brick. The basements are entirely under ground, and dark; only one of these was inhabited. The dimensions of this basement cannot be given, as it was too dark to see the measuring figures or the outlines of the several holes in this domicile. The other basements were filled with dirt and ashes. These front houses are sixty by thirty-eight feet. The first floor is occupied by liquor and grocery stores.

"To the upper five floors are two distinct entrances, separating the building into two houses. The stairs and halls, each of which is thirty inches wide, leading up stairs, are mostly entirely dark, and admit neither light nor air.

"Drainage pipes are on the hall of each floor; the Croton water ascends only to the hall of the second floor. On each floor are four domiciles, which differ very much in regard to internal arrangements and size, as the houses are built very irregularly. Each family has one room, with one or two bedrooms, and some have no bedrooms, only a recess for the bed. For instance, in No. 9 the bedrooms have mostly a small opening leading into the dark hall; some have a regular window, and others no opening at all. The ventilation is therefore imperfect, and in many instances impossible.

"On one side of the second floor we find one family occupying a room 12 × 14½ feet, and two bedrooms, each 10×6. The room has two windows, and one bedroom only a small window opening into the hall. The ceiling is here nine feet in height. A bedroom on the fifth floor, 9 × 7 feet, has no window, and therefore no ventilation, the foul and vitiated air never changing. This apartment contains 224 square or 1,568 cubic feet. Suppose the family to be of six persons—which number, and even more, we often find in one family—then each person has only two hundred and sixty-one cubic feet of air, of which the largest part is poisonous. The rear building is four stories high, and was used formerly as a Baptist church. The stories range from six feet ten inches to nine feet in height. On each story are eight families. Each apartment consists of one room and a bedroom. In some cases the latter room is sub-let. The building is sixty by forty-two feet in width. There is neither drainage nor Croton water within the house. A dark passage way, thirty-five inches in width, divides the floors. The doors can only be found by the sense of feeling. The bedrooms have only one small window opening to the hall, and where they are broken the inmates have them closed hermetically with wood. Ventilation is entirely excluded from these premises. The whole building is in a dilapidated condition, extremely filthy, full of vermin, and has been known for years as a 'fever nest.'

"The population of these houses consists of three hundred and forty-one persons, in seventy-seven families, divided as follows:—Two front houses, five floors, four families on each, make forty-four families. In four stories four families, in basement one family, and floors in rear building are each eight families, make thirty-three, giving the total as above. The ground allowed to each person is twenty-nine square feet, in which calculation the alleys and yards are included."

Here is a simple detail of facts which are presented to us as the result of a thorough and careful inspection by a reliable man. But startling as these statements are we have the best of reasons for saying that they can, with slight and unimportant modifications, be made to apply to hundreds of tenements in this city. In fact, we may prepare ourselves for the contemplation of a still more appalling picture of misery when the notoriously filthy and densely populated Five Points is unearthed to the vigilant inspectors.

The necessity for a radical reform in the tenement house system has long been urged by the profession, but aside from offering advice in the matter they have felt themselves powerless to effect any good result. But may we not hope that the time for efficient action has arrived, and that the Health Board will apply the remedy which has been so long and urgently asked for?

Reviews.

THE RESTORATIVE TREATMENT OF PNEUMONIA, by JOHN HUGHES BENNETT, M.D., F.R.S.E., &c. Third edition. Edinburgh: Adam & Charles Black, 1866. Pp. 110.

THE object of the distinguished author of this *brochure* is to exhibit by numerous well collected statistics of cases of pneumonia observed by himself and by medical assistants under his supervision, the successful results of a special mode of treatment. The recorded data thus supplied are derived from a clinical practice extending over a period of sixteen years in the wards of the Royal Infirmary at Edinburgh. The treatment adopted by Dr. Bennett may be summed up in his own words:—"During the period of febrile excitement I content myself with giving salines in small doses, with a view of diminishing the viscosity of the blood," all of which is hypothetical. "At the commencement of the treatment I order as much beef-tea, milk, and other nutrients as can be taken; and as soon as the pulse becomes soft, solid food, and from four to eight ounces of wine daily. As the period of crisis approaches I give a diuretic, consisting of half a drachm of nitric ether, and sometimes ten minims of colchicum wine, three times daily, to favor excretion of urates. But if crisis occurs by sweat or stool, I take care not to check it in any way. I do not consider that the salines and diuretics do more than assist the natural progress of the disease. The essential part of the treatment consists in the rest, nourishment, and support given to the body throughout."

The conclusions arrived at by Dr. Bennett may be given as follows:

1. Simple primary pneumonia, whether single or double, if treated by the restorative plan, is not a fatal disease. Of 105 consecutive cases, 26 of these being double, occurring in all seasons, and diffused over sixteen years, not one case died. 2. As a general rule, prostration and weakening complications or remedies lengthen the period of

the disease, and also prolong convalescence. Women recover less quickly than men. 3. The amount of lung affected by pneumonia did not affect the result, for all the cases recovered, nor did it exert as much influence on the duration as is generally supposed; for, according to the author, "if only a fourth of one lung be affected, the recovery may take place in eight days; but after that, whether the half or the whole of one lung, or two-thirds of both lungs be involved, it does not appear to cause much difference." 4. Since the observations of Louis, it has been supposed that a pneumonia at the apex of a lung was more fatal and more prolonged than one at the base; and so it may be with an antiphlogistic treatment. But with the restorative practice, these statistics show that in eleven cases in which the disease was confined to the apex, recovery took place in all. 5. In no single instance did a case of acute pneumonia degenerate into the chronic form, or become gangrenous. 6. Deaths only occurred from severe complications, and Dr. Bennett is disposed to believe that under a restorative treatment, begun early in the case, the influence of age and sex on the mortality is not appreciable. Neither is the duration of the disease much affected by complications, so long as the general health is not impaired.

The author next considers the comparative statistics of results of treatment. Without citing the mass of materials embraced in this paper, gleaned from the experience of European and American physicians, we may briefly quote the comparative degrees of mortality attendant upon each mode of treatment.

An extreme antiphlogistic treatment has always been attended with a large mortality, amounting to one death in three cases; but when modified in various ways —that is, by diminishing the amount of lowering remedies, selecting cases, or by the cases being those of young and vigorous subjects—the mortality varies from one death in 4½ to one in thirteen cases.

When one-half the cases are those of children, or persons below twenty years of age, and the lowering treatment slight, the mortality diminishes to one death in 28 cases. A treatment by large doses of tartar-emetic has been accompanied by a mortality varying from one death in 4½ to one in 9⅙ cases. A dietetic or expectant treatment has been followed by a mortality varying from one death in 7¼ to one in 10.9 cases. In children, according to Barthey, the mortality is almost *nil*.

The results of a mixed treatment, according to the nature of the symptoms, have been a mortality varying from one death in 3⅓ to one in 13⅔ cases; while a treatment by stimulants was followed by a mortality of one death in 9 cases.

"The restorative treatment of the author having been attended by a mortality of only one death in 32¼ cases, is the most satisfactory yet published. But when it is considered that the four deaths resulted from pathological complications unconnected with the pneumonia, this treatment may be said to render the mortality in true cases of pneumonia *nil*. * * * It follows that supporting and restoring (not stimulating) the nutritive powers of the system, and avoiding all weakening remedies, ought to constitute the practice in pneumonia."

The rest of this able pamphlet is occupied in answering objections urged against this mode of treatment, and in the details of cases of special interest.

Disease a Part of the Plan of Creation. The Annual Discourse before the Massachusetts Medical Society, May 30, 1865, by Benjamin E. Cotting, M.D. Boston: David Clapp & Son, 1866.

A philosophical essay, replete with original views, and written in a truly classical style. The author takes the ground that disease is something more than a mere accident in our history, or an unwarrantable experiment upon our powers of endurance; and triumphantly appeals to the evidences of a limited existence long before the appearance of the human race.

As the highest intellects have been baffled in the investigation of the causes of disease, is not the inference therefore just, that the arrangement of these laws is due to an Intelligence superior to any created individual exemption from, or susceptible to lethific agencies? Season, influences, the self-limited character of many maladies, and the different degrees of tolerance thereof, constitute certain links in the argument; while the term *vis medicatrix naturæ* is designated a very inappropriate expression for the vital principle of endurance or the development of the reserved force of the system.

Still we may guide the malady, and, while recognising the laws which govern it, not ignorantly produce results which science should teach us to prevent. False facts and non-sequitur conclusions should be avoided, and the patient taught to acquiesce in an intelligent submission to the laws of disease.

Catalogue of the Alumni Officers and Fellows of the College of Physicians and Surgeons, Medical Department of Columbia College, in the City of New York, from A. D. 1807 to A. D. 1865. New York: Baker & Godwin, Printers, 1866.

This catalogue, published by a committee of the Alumni Association, is a model of historical research and typographical elegance, in which latter particular it is perhaps unsurpassed. The post-office addresses and medical honors of the graduates are given as far as ascertained; and many dates of deaths, with the nature of the final disease, duly noted. The rather glaring error, in the case of the first woodcut, of transferring the honor justly due the Pearl street to the Barclay street edifice, is however to be regretted, and will, it is hoped, be corrected in future issues. Perhaps, also, a more general rendition of the dates of tenure of the positions held, a revision of the nomenclature of others, and the insertion of one or two omitted names, might still further conduce to the absolute accuracy of the work. According to the summary, the number of Alumni, including sixteen upon whom honorary degrees were conferred, amounts to 2147, of whom 442 are known to be deceased.

National Quarantine.—The Hon. W. J. Stillman, U. S. Consul at Canea, in a communication to the Hon. W. H. Seward, Secretary of State, dated Feb. 12, 1866, suggests a mitigation of stringent quarantine regulations by requiring that a sworn Health Officer, responsible to our authorities, should be taken on board at the vessel's point of departure; also, that in case of any outbreak of the disease, the time occupied by the voyage should be counted as part of the quarantine. By this means he thinks the temptation to conceal infectious maladies on board would be removed. He also proposes a reference of the matter on the part of our representative to the International Sanitary Commission at Constantinople, as an expedient worthy of universal adoption, and calculated to save much annoyance on the long lines of travel. From certain observations, he concludes that not less than fourteen days is required to isolate the pestilence.

The Charity Hospital.—The name of the Island Hospital has been changed to Charity Hospital.

Reports of Hospitals.

PENNSYLVANIA HOSPITAL.

RHEUMATIC ARTHRITIS.—HOW TO DISTINGUISH IT FROM RHEUMATISM AND GOUT.—THE TREATMENT OF THE DISEASE, ETC., ETC.

SERVICE OF DR. DA COSTA.

——W——CE, a Scotchman, æt. 43, by trade a printer, states that he "took cold" in the latter part of May last from exposure, and had at that time what appears to have been a bronchitic affection. The cough still continued, when he was confined to his bed about the 14th of July, in consequence of being seized with intense muscular pains and fever, which lasted for about three weeks; he had diarrhœa also, but had no trouble about his joints. About the middle of August, and while still recovering from the febrile malady, his joints began to swell; but he can give no distinct history as to the commencement and course of these swellings. He noticed a gradually increasing stiffness of his shoulders, soon accompanied by difficulty in moving them, at first confined to the left shoulder, and then involving the right shoulder also. About the same time similar conditions became observable in the knee-joints, since which time the stiffness and swelling have been constant. There is also swelling of the feet, with marked deformities of the phalango-metatarsal articulations, particularly marked at the articulations of the great toes, which are dislocated so as to lap transversely the other toes.

Four years ago this patient had an attack similar to the present one, though of a much less severe character. During this attack, the toes assumed their present deformity, and the condition had not improved in the interval.

Three years and a half previous, or a little more than seven years ago, this man had his first attack of this affection, but the changes in his joints began during his second attack, and their condition has grown worse during his present illness.

In examining the present condition of the patient, we find that the joints of the fingers are for the most part unaffected with any recent trouble. There has been some swelling of the middle joints of the two little fingers, which, though enlarged, are not red. The third finger of the right hand had participated in the swelling; and during the present attack the middle joint of the middle finger of the right hand is becoming involved. The hands curve somewhat towards the ulnar side, especially when the fingers are flexed upon the palm. The elbow-joints are unaffected on either side. The shoulders cannot be moved without causing great pain; the attempt to move them on the part of the patient causing pain also. There is no redness of the joints, but they look swollen, and offer marked resistance to any attempt at motion, producing in the right shoulder-joint a sensation much resembling rustling, which is as yet imperceptible upon the left side. The knee-joints can be moved without any trouble, though both these joints are painful; still movement does not appear to cause any perceptible increase in the amount of pain. The right ankle is stiff and swollen, but not red. There is some pain experienced in moving it. The joints of the toes are all more or less partially luxated; the joint of the great toe much enlarged, and so much displaced that the toe crosses the smaller ones. There is impaired motion of these joints. The general condition of the patient does not, on the whole, appear very much disturbed. He is not strong, is somewhat emaciated, and his tongue is covered with a yellowish coat; but his appetite is fair, and his bowels regular.

Examination of the urine reveals no abnormal acidity, nor any evidence of the presence of albumen or of the phosphates; but there is a slightly heightened specific gravity, which is the only departure from a normal condition. The heart sounds are not very strong, but reveal nothing abnormal. The character of the pulse corresponds to that of the sounds of the heart, the pulse being feeble, and numbering 78 to the minute. The skin is rather cool. There is no fever. There are no pulmonary symptoms of disease. Resonance on percussion is good, and the patient has no cough remaining.

This is a case of rheumatic arthritis, an obscure disease, and but little understood, confounded with rheumatism and with gout, yet differing from both. For a long time—indeed ever since rheumatism has been at all studied—cases have been observed differing from ordinary rheumatism, and differing also from gout. The manner in which they differ from rheumatism is admirably illustrated in the case under consideration. They differ in attacking the smaller joints with just as much readiness as they attack the larger joints. Further, they differ from rheumatism, or at least it may be stated to be a very striking feature of the arthritic malady, that it almost invariably attacks joints symmetrically; that is to say, the corresponding joints of each side of the body; and the present case affords a marked instance of this symmetry of disease. The perfect absence of fever is another point of difference between rheumatism and rheumatic arthritis; and this same absence of fever exists in cases running what might be termed a more apparently acute course. Though there may at the onset be little heat of skin, there is nothing like the ordinary phenomena of a febrile attack of articular rheumatism. Another proof of its difference from rheumatism, as is well shown in the present case, is the entire absence of cardiac complication. Had this been a case of articular rheumatism passing through three acute attacks, it is very probable that there would have been some marked cardiac complication, the advance of which is one of the distinguishing features of the arthritic disease.

But the disorganization and structural changes in the joints which it produces are the most important of all the signs of difference. This result is exceedingly different from the effects of an ordinary attack of rheumatism. However severe the attack of rheumatism may be, the patient generally recovers, with very little change in the nature of the joints. Rheumatic arthritis almost invariably leaves behind it some traces, in a disorganization of the joints.

The points of difference between this disease and gout consist in the former being of so much longer duration; it is, comparatively speaking, a disease running a somewhat chronic, or a subacute course. From a gouty attack, the patient will recover in a week or two, while the disease we are investigating is one which lasts essentially for months, as it has done in the present instance. It also differs in not leading to "chalk stones," as gout does, which causes a deformity of the joint of a different character. Again, in gout there is an excess of uric acid in the blood, and there is no such excess here. Though from the involvement of the small joints this affection might be considered gouty, and although it approximates more closely to gout than it does to rheumatism, there are yet points of difference sufficiently distinct to discriminate between the two maladies; and although the small joints are affected, so likewise are the larger joints.

This, then, is just one of those cases belonging to that general class usually described as a mixture of the two diseases, gout and rheumatism, or an illustration of what

is called rheumatic gout. It is hardly credible that the two diseases are really blended in this way, although the case presents symptoms of both. It may rather be viewed as a distinct affection, as distinct as any diseases are that are at all kindred, but unquestionably with clinical features as distinct from rheumatism or gout, as typhus fever presents from typhoid fever.

The structural disease present consists in positive inflammation, fixing itself upon a joint; and hence the qualifying term *arthritis*, which conveys a better idea of the disease than if we call it rheumatic gout, or gouty rheumatism, though we may designate it rheumatic arthritis if we wish to cling to the idea of its rheumatic origin. It possesses, indeed, more of the elements of true inflammation of the joints than does any rheumatism. Here is inflammation taking place, with effusion into the capsules of the joints, with the result of inflammation, thickening; with dislocation of the joints from alteration of all their ligaments, without any deposit of chalky material, as in gout. Moreover, with, undoubtedly, often in time, absorption of the cartilages between the ends of the bone and friction of these denuded surfaces, producing a shining condition, which has been compared to the appearance of polished ivory or porcelain. Such a state of things never follows rheumatism. This condition occurs not alone in one joint, but in several; for the symmetry of the disease is exhibited in the chronic changes as well as in the more acute conditions of the disease.

The prognosis of this disease is exceedingly unfavorable. It is a terribly crippling malady, presenting a prognosis much worse than that from rheumatism or gout.

A policeman afflicted with this disease was under the care of Dr. DaCosta, some years ago, who had every joint in his body affected similarly to those of the foot of the patient before the class, even the articulation of the jaw having undergone disorganization, rendering the sufferer a helpless cripple, unable to move, and almost unable to swallow. He died from gradual exhaustion; this condition of things having existed for about six years, under the personal observation of the speaker. The case narrated should teach the important lesson of preventing the joints from falling into this condition, if possible. A great deal of good can be done in the early stages of this affection by keeping in view the local inflammation, and by instituting a treatment which shall be much more active locally than that pursued in an ordinary case of rheumatism. Thus, perhaps, the joints may be saved from destruction, and a state of things be prevented which it would be almost impossible to remedy. Therefore, leech the joints, blister them, apply iodine; treat them as inflamed joints, actively, during the earlier stage.

Not long ago the speaker attended a gentleman suffering with a very severe attack of acute rheumatic arthritis. The treatment recommended was instituted with the administration internally of very little medicine, and the patient recovered without the least thickening of any of the joints of the body.

As regards constitutional treatment, the ordinary alkaline treatment of rheumatism is not likely to be productive of benefit; neither will the colchicum employed in gout be more successful, whether in the acute, subacute, or chronic condition, which latter is the more generally observed character of the disease.

The treatment most likely to do good, at any stage, whether acute or chronic, is by guiacum, which has an effect, unquestionably, in many cases of rheumatic arthritis, whether given alone or in combination with iodide of potassium. The more recent the case the more likely is this treatment to prove beneficial; the more protracted, the less likely to succeed.

Under any circumstances, whether acute or chronic, this disease occurs preëminently in individuals of enfeebled constitution. Attention to the general health, therefore, assumes an importance far greater than in any other diseases of the same character. Good results may be produced by the use of cod-liver oil, arsenic, and iodide of iron, even in cases in which the disease has been of considerable standing.

The patient before us is taking half an ounce of cod-liver oil twice a day, and eight drops of Fowler's solution three times a day, and is furnished a good nourishing diet.

It may be a question of consideration whether any benefit could be expected from local treatment with such a condition of joints as the case presents. It is not too late to attempt it. Small blisters will be placed over some of these joints, and iodine will be applied locally over others, so as not to blister too many joints at once. Beneficial results often follow the local application of the plaster of iodide of lead, keeping the parts enveloped in it, even where there has been considerable structural change; but, under any circumstances, improvement comes but slowly.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, APRIL 4, 1866.

DR. JAMES ANDERSON, President, in the Chair.

DISCUSSION ON CHOLERA.

DR. A. CLARK, in accordance with a previous request of the president, exhibited a number of Cruveilhier's and Pirigoff's plates, in illustration of the pathological anatomy of cholera. These embraced representations of extraordinary congestion of the alimentary canal, enlargements of Brunner's, Peyer's, and the mesenteric glands—instances of arborescent and punctate vascularity, ecchymosis ulceration, and diphtheritic exudation; this last upon the peritoneal coat of the intestines, etc., etc. In corroboration of Dr. Hutchison's view, that the choleraic vomiting did not empty the stomach, he called attention to a plate exhibiting portions of a mushroom retained within that organ, this fungus being a favorite article of diet among the Russians during the Lenten season. In referring to the injection of saline materials into the venous circulation, he recalled an instance where 300 ounces of a solution were used, and repeated more than once, with ultimate recovery of the patient. The views of the gentlemen who had preceded him were adverse to this plan of treatment, perhaps not without reason; but in proof that the cases in which it was tested were not uniformly fatal, he quoted authority for the fact that there had been four recoveries out of twenty-six cases. As, however, chemical examination had almost settled the point that the saline materials found in the evacuations were not redundant, he, for his part, if injections were determined upon, should employ warm water alone, in order that there might be an approach to the normal constitution of the elements.

In reply to Dr. Van Kleek's question regarding the treatment recommended by Prof. George Johnson, of King's College, he would state, that as far as the views of the latter were concerned, his sources of information did not comprehend the entire field; that the therapeutical portion of the papers now in course of publication, had not as yet met his eye; but from the tenor of the reasoning that the choleraic discharges were elimi-

native or depurative, he was prepared to expect the recommendation of purgatives, castor oil at the very least.

Dr. Batchelder had been much encouraged in treating the diarrhœa ushering in the disease, by the exhibition of opium and the subacetate of lead. He thought that when the superficial capillary vessels were relaxed, a favorable issue might be reasonably expected.

Dr. Bibbins, during the epidemic of 1849, was house physician at Bellevue Hospital. At that time all cases of diarrhœa received immediate attention, and the strictest medical police was enforced. The late Dr. Gilman, then one of the visiting physicians, was much gratified with the statistics of this Hospital as compared with those of similar institutions in which the disease, according to his expressive phrase, *was treated.* The late Dr. Reese, the last resident physician of the Hospital, was strongly in favor of venesection; but the results were most unsatisfactory.

Dr. Herzog thought that in discussing the treatment, not enough stress had been laid upon the several stages or the type of the disease. Blood-letting in one epidemic had been more fatal than in another; and even the apparent recoveries might have been due to the exhaustion of the local epidemic, and not to this particular mode of treatment. As far as his experience went, he had seen saline injections into the veins employed in twelve cases—all of which had proved fatal. In the prophylactic treatment, which of course merely referred to the precursory diarrhœa, he thought that there was no appreciable difference in results in favor of either the expectant or the stimulating plan, and the same remark he would apply to the use of opium. In the expectant treatment, quietude entered, of course, as an essential element. Of the stimulants, he considered camphor the most efficient. Where rice-water stools were present, large doses of calomel had found many advocates; but ice alone, he thought, had proved quite as successful. While on this part of the subject he was reminded of a case in a German hospital, where the patient, almost asphyxiated and given over by his medical attendants, recovered by copious and frequently repeated draughts of an agent no more potent than "*lager-bier.*" A parallel case had been recently cited within their hearing by Dr. Hamilton, where the patient, at first somehow overlooked by the physicians, was at length found with a companion no other than a pail of water by his side, in which way he passed through the stage of collapse on to a complete recovery.

Dr. Vanderveer had an opportunity of witnessing, during the epidemic of 1854, the effects of blood-letting in six cases, in all of which a bounding pulse seemed to indicate this expedient. They ended fatally. In fact, he had found, upon microscopical examination, that the red blood-globules were deficient. The inhalation of chloroform gave no better results. Large doses of calomel seemed to be more beneficial in the epidemic of 1849 than in that of 1854. His usual method of employing this agent had been in doses as large as sixty grains at once, followed by thirty grains more in the event of its rejection by vomiting; and then again by a return to the original dose every hour or so, should this annoying symptom remain unconquered. The object sought for was the retention of some portion of the calomel at least.

Dr. Gunn had a hospital experience in the treatment of the disease in 1832. At his institution there had been 222 fatal cases out of 650. He had seen calomel and opium in large doses fairly tried, but with no very decided effect upon his convictions of the value of the combination. An unguent known in the hospital as the camphorated mercurial ointment next succeeded, but the medical staff finally settled down upon the following formula to be taken after each evacuation or attack of vomiting: R. Hyd. submur. pulv. opii, pulv. gum camphor, āā gr. i. Misce.

Stimulating pediluvia were also employed. He had seen the injection of a pint of tepid water into the median basilic vein during the collapse prove successful. He had likewise acted his part in the epidemics of 1849 and 1854 as a private practitioner, and had learned to rely upon the following combination: Aq. camph. ℥ iv; acid nitrici gtt. 10; and tinct. opii ʒ i. Of this, a dessert-spoonful was administered once in two hours after each attack of vomiting, or after each evacuation. With this were used red-pepper pediluvia, sinapisms to the bowels, and unslaked lime enveloped in wet muslin, placed within the axillary cavity. This last was intended to fulfil the conditions of a steam-bath whenever moisture was made to come into contact with its substance. He had seen incipient collapse changed into the wished-for warm perspiration, and the vomiting fully brought under control.

The meeting then adjourned.

EAST RIVER MEDICAL ASSOCIATION.

Regular Meeting, April 2, 1866.

Dr. Verranus Morse, Vice-President, in the Chair.

Dr. M. S. Buttles, according to announcement, read a paper upon the Pathology and Treatment of Bright's Disease. After adverting to the somewhat loose manner in which the term, in spite of the additions to our knowledge since the time of the first description by Dr. Bright in 1837 was employed, he passed to the consideration of the three distinct forms of the disease: 1. The Inflammatory (acute or chronic); 2. Waxy degeneration; and 3. Fatty degeneration

In the acute form of the inflammatory stage the urine, scanty, high-colored, and loaded with albumen, contains exudative and desquamative casts of various kinds, with epithelial cells, blood-corpuscles, salts, and other morbid products. The excessive congestion and extravasation of blood in this variety cripples the secreting function of the organ, and constitutes the principal source of danger. In the chronic inflammatory form anasarca is usually the first symptom which excites the alarm of the patient.

Waxy degeneration, the usual accompaniment of scrofulous and tuberculous disease, is characterized by dropsy, accompanied by a peculiar cachexia and a dry husky skin. As the disease progresses the urine becomes proportionately more scanty, and the casts present a peculiar waxy pale look, with a few transparent colorless epithelial cells.

The kidneys dense to the feel, and of a size greater or smaller than the normal, as the case may be, reminded him of what Dr. Watson calls dirty beeswax. The pale translucent surface due to diminished vascularity is marked; as also is the transparency of the Malpighian vessels and the tubules deprived of their epithelium. The capsule, owing to adhesions, does not peel off readily. Although Dr. Bennett suggests that this change is due to a chemical action that has taken place in the tissue, the precise nature of the degeneration is not known.

Fatty degeneration is usually associated with cardiac and bronchial difficulties. It may also accompany fatty degeneration of the heart and liver. The constant symptoms are dropsy and persistent albuminuria, accompanied with an abundance of fat globules. The fatty granules, more or less obstructing the tubules, encroach upon the surrounding secreting textures; while the com-

pressed and therefore anæmic vessels impart to the organ a dirty white or fawn color. Then, again, superficial irregularities, due to an occasional hypertrophy of the fibrous structure, may be noticed. In the treatment of Bright's disease, diuretics which stimulate the organ to undue action are to be abandoned for agents having power over the skin and bowels.

The Compound Jalap powder or Pulv. Purgans of the older Pharmacopœias, in 3 ij. doses repeated according to the exigencies of the case. Elaterium in half-grain doses repeated every hour until its effect is produced; though in appearance heroic treatment, will, unless the patient's strength is much exhausted, have a sensible effect upon the dropsical symptoms. Among the diaphoretics the vapor-bath holds the first rank; still the effects of a warm climate are not to be despised. As the disease advances, however, it seems no more than philosophical that the obstructions in the secretory tubes might be washed out by increasing the flow of the urine, whiich last might also act in a compensating way by imposing extra duty upon the pervious ones.

To bring about this result, colchicum, buchu, squills, uva ursi, digitalis, nitrate of potash, and other similar agents have been employed; but upon the bitartrate of potash Dr. Bennett chiefly bases his hopes. This may be administered in doses of from 3 ss. to 3 j. three or four times daily.

Dr. Hart had frequently noticed that when the albuminuria which accompanied pregnancy was characterized by œdema confined to the vulva and lower extremities, the issue of the case was much more satisfactory than when the hands and shoulders were the parts implicated.

Dr. Buttles was also inclined to the same view; still, as the œdema was owing to a removable cause, he had never been over-alarmed as to results unless other corroborating symptoms might warrant. He remembered an instance where, owing to the fact of the mother nursing her infant, the absence of the menses was accounted for; and the presence of albumen in the urine, together with the usual dropsical symptoms, completely deceived the medical attendants, one of whom was a gentleman of acknowledged eminence in his profession. The only doubtful element in the matter seemed what might or might not be casts under the microscope. Vaginal examination threw no light upon the case, and yet the woman was three months gone in pregnancy. Delivery accordingly effected a cure of this case of aggravated renal disease.

Dr. Hart gave his experience in the use of elaterium, and was on the whole pleased with its effect in relieving the dropsy in the class of cases indicated in Dr. Buttles's paper. When albuminuria, however, accompanied pregnancy, he prepared himself for dangers in store, although he had not always encountered them.

Dr. M. L. Smith stated that on the 12th January he was called to Mrs. S. in regard to her expected accouchement; she was thirty-three years old, five years married, had had three children, none of whom were then living. She had enjoyed good health until the commencement of the cold weather; she first noticed her face swollen in the morning; afterwards, that she could not put on her shoes on account of the swelling of her feet, and the account she gave of herself at this time was that she could not help herself. Her only stimulant was an occasional glass of ale with her husband. He found considerable œdema of face, arms, and abdominal walls; the lower extremities were enormously distended. The urine, small in quantity, upon application of heat and nitric acid, became almost solid.

A vapor-bath in bed and hydragogue cathartics were the principal features in his plan of treatment. There was no material change in her condition until the 19th January, about 11 P.M., when he was summoned in haste. Labor had then commenced. The vertex, which presented very high up, advanced slowly till about 1.30 A.M., when she was seized with convulsions; while under the influence of chloroform he delivered with the forceps a hydrocephalic child, and the convulsions not having returned within a reasonable time, he left her in a comfortable condition.

On January 25th, however, the convulsions again recurred, and the patient died before his arrival. According to the nurse's testimony, the convulsions commenced less than an hour before; although she had been slightly delirious for the preceding two or three hours. The child died two days afterwards.

The Society then adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 2, 1866.

Dr. Thos. C. Finnell, President, in the Chair.

The President announced that the Comitia Minora had voted to grant certificates of membership to

Prof. Austin Flint, Jr.; Drs. Wm. M. McLaury, John P. Pemberton, P. Brennan, John J. Crane, Abbott Hodgman, Chas. W. Packard, John H. Hinton, Foster Swift, Sylvester Teats, John W. S. Gouley, D B. St. John Roosa, Geo. A. Peters, William H. Draper, Edward B. Dalton; Profs. Chas. A. Budd, Alfred L. Loomis, Frank H. Hamilton, John C. Dalton, T. Gaillard Thomas, John T. Metcalfe, Wm. H. Van Buren, Alonzo Clark, Fordyce Barker.

Dr. Isaac E. Taylor read a paper on recto-vaginal and recto-labial fistula. Having described this disease in its various forms, he recommended a plan of treatment which he had found successful. After evacuating the rectum, a free and complete division should be made on the side where the fistula exists. If the lesion be double, the incisions should correspond. The subsequent treatment should be directed to procure complete repose of the parts involved. Opium should be given to prevent fæcal dejections, and no danger need be apprehended if the bowels should remain unmoved for many days. Dr. Taylor did not claim to be the originator of this plan of treatment, but gave the credit to Dr. J. Rhea Barton of Philadelphia, who published an article on this subject in 1839.

Dr. Henry M. Field reported from the Committee on Diseases. During the month of March, the weather had been favorable to the development of disease; yet there was no epidemic save a slight one of measles, and as in January and February, so in March, the deaths had been fewer than during the corresponding month of last year.

The President exhibited a section of lead pipe lined with tin to prevent lead-poisoning.

Dr. Van Kleek inquired if the dangers apprehended when Croton water was introduced, from its contamination by the lead pipes through which it flowed from the mains to the faucets, had been realized? He had not seen a case of this disease for fifteen years.

Dr. Bibbins said that for several years, while he was one of the visiting physicians of the Demilt Dispensary, during which time upwards of twenty thousand cases had come under his obversation, and since his resignation of that position as one of the attending physicians to the class of head and addomen in the same institution, he had not seen any one affected by lead disease which could be traced to the Croton water.

Dr. Downs remarked that many years since painters' colic was much more prevalent than at the present time. Persons sleeping in rooms freshly painted were seized with colicky pains. He supposed that the diminution of this disease was due to a change of materials used by the painters.

The subject was referred to a Committee of Three.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Jan. 25, 1866.

Dr. Frank H. Hamilton, President, in the Chair.

(Concluded from page 62.)

HYPOSPADIAS.

Dr. E. Bradley exhibited to the Society an example of hypospadias in an adult aged twenty-three years, a native of Denmark. The patient presented himself to Dr. Bradley about eight months ago, at which time the penis was only an inch and a quarter in length, being firmly bound down by bands of fibrinous tissue. The organ at first, in consequence of these bands, was kept back to that extent between the two testicles as to give to the genitalia the appearances which properly belong to the female. The opening in the urethra was about an inch and a quarter from the extremity of the penis, the glans being entirely impervious. The bands were divided, and liberated the member to that extent that an inch and a quarter more was gained for it in length. During the healing of the incisions the penis was strapped up towards the abdomen. A No. 14 sound could easily be introduced into the bladder through the unnatural opening, and everything seemed to be ready for the performance of a radical operation. He had not decided between the choice of the trocar and canula on the one hand, or a plastic operation on the other. The patient had perfect control over his water, and could project a stream with considerable force; but for obvious reason he was compelled, during urination, to assume the sitting posture.

ABSCESS OF BONE.

Dr. J. C. Hutchison exhibited two buttons of bone which he had removed by operation from a gentleman who had been the subject of sinuous abscess of the humerus. He was twenty-seven years of age, a farmer by occupation, and stated, that fifteen years ago he had an inflammatory swelling of the left humerus, at the junction of its middle and upper thirds. This inflammation subsided after a while, only, however, to recur again at short intervals, for a period of three years, at the end of which time, a small piece of bone the size of the finger-nail discharged itself from the front portion of the humerus, in the situation of the insertion of the deltoid muscle. After this, the opening healed for a time, but there was constantly more or less swelling of the part. About this time, also, another opening on the inside of the humerus, just below the insertion of the latissimus dorsi, took place. This opening discharged pus in small quantities up to the time Dr. H. saw him, which was on the nineteenth of December. His health was not at all impaired by this continuance of diseased action. On examination of the limb, an eschar was discovered on the front of the arm. The humerus was somewhat increased in size, and was probably one-fourth or one-fifth larger in diameter than normal. The little sinus which was discovered on the inner side of the arm presented the usual pouting appearance. A probe passed through this upwards, entered a cavity in the bone. The suspicion was that the patient was suffering from that form of abscess of the bone, so well described by Dr. Markoe in a paper on this subject, published some years ago in the New York *Journal of Medicine*. The fact, however, that this condition of things was met with in the shaft of the bone, led also to an equally strong suspicion that it was nothing but a simple case of necrosis. An incision three inches long was made on the inner side of the arm, just inside of the nerves which accompany the brachial artery and vein. The median nerve was seen, but was not injured. The periosteum was considerably thickened, and when it was incised to the extent of an inch or two, the opening through which the probe passed was plainly to be seen. When the surface of the bone was found not to possess the usual granulated appearance which belongs to the involucrum, the supposition was stronger than ever that the disease was really abscess of the bone. On applying the trephine of a one-fourth inch diameter, just below the opening, a button of bone was removed down to the medullary cavity, there being discharged about the same time a small quantity of pus, healthy in character. The point of the trephine was then applied directly over the opening in the bone, when the cavity of an abscess was exposed to view, showing its bottom lined by delicate granulations, and a second piece removed. After the completion of the operation, a piece of lint was introduced into the wound, and the parts left to fill up. The patient was seen by the doctor ten days afterwards, when he was progressing favorably. The bone was in a state of eburnation.

The fistula through the bone was, as usual in such cases, very oblique in its course, and this circumstance explains the reason for the chronic nature of the disease. The pain was not severe at any time during the progress of the case.

Dr. Buck remarked that the disease seated itself more rarely in the shaft than in the spongy tissues of the bone.

Dr. Hutchison stated that he had operated on three cases in which the disease was confined to the spongy tissue, but had never before met with an instance in which the shaft was attacked.

The Society then adjourned.

Metropolitan Board of Health.—There have been appointed thirty assistants to the Sanitary Inspectors, with the title of clerks, who are to serve during April and May, at a salary of one hundred dollars per month. They are to be detailed for duty in the cities of New York, Brooklyn, Yonkers, Morrisania, and Flushing, by the Sanitary Superintendent.

Those appointed from New York city are:

Drs. John C. Acheson, S. P. Churchill, Joseph O. Farrington, R. W. Fields, N. Marston Freeman, John P. Garrish, N. Griswold, — Jackson, B. M. Keeney, James W. McLean, Archibald W. Maclay, — Martindale, Archibald F. Mudie, Charles W. Packard, Horatio Paine, Ezra R. Pulling, J. J. Purcell, Wm. F. Thoms, F. J. Randall, Louis A. Rodenstein, Lazarus Stern, Thomas B. Stirling, John W. Warner, and Dr. Leonard Weber.

Those appointed from Brooklyn, N. Y., are:

Drs. Bretz, James Harris, J. S. Holley, A. W. Leighton, Wm. Stewart, and Dr. C. C. Waller.

The expected aid from this temporary reinforcement, which includes the names of several of our most earnest workers in the Sanitary field, together with the additional $100,000 recently inserted into the tax-levy for the especial use of the Commission during the current year, gives us still further assurance that emergencies are to be met with determination and spirit.

Progress of Medical Science.

The Rivinian Foramen in the Membrana Tympani.—*Dr Bochdalek*, Professor of Anatomy in the University of Prague, claims to have rediscovered the *Foramen Rivini* in the membrana tympani. Describing the opening as found in the first preparation which he examined, the Professor says:—"To my great astonishment I saw, by means of a magnifying glass, on the posterior portion of a small depression on the membrana tympani, and a little behind the process of the malleus, a very small canal, in which was perceived, although very indistinctly, a punctiform opening. By means of a very fine bristle I succeeded in entering a narrow groove, not more than one-third of a line long, which ran in an oblique direction from above downwards, and somewhat anteriorly into the cavity of the tympanum, so that the bristle passed immediately beneath the case of the handle of the malleus, and just as closely beneath the *chorda tympani*, and on pushing the bristle still further, it passed under the tendon of the inner muscle of the malleus, and struck on the inner wall of the cavity of the tympanum."

The foramen was also found in the opposite membrane of the same subject, as well as in sixty-three other preparations of the membrana tympani. Forty of them were from fresh subjects; the remainder had been preserved in alcohol. In two cases only, in which examinations were made, the opening was not found. In both these cases morbid changes had occurred in the drum. The Professor, therefore, concludes that the existence of this foramen is a rule in the normal membrana tympani.—*Prag. Vierte Jahrschrift, January*, 1866.

Anæsthetic Properties of the Bichloride of Carbon.—Dr. Sansom, in a paper having the above title, and read before the Obstetrical Society of London, claimed to be the first to describe this body as an anæsthetic in his book on Chloroform, published in May, 1865. It was then called tetrachloride of carbon; it has since been determined to be a bichloride, and Sir James Simpson has suggested for it the convenient term chlorocarbon. The fluid possesses many of the characteristics of chloroform; its odor, however, is more pleasant and less pungent; its density is slightly greater, and its volatility less. It takes a longer time to induce anæsthesia. On the 4th of July, 1864, the author, in conjunction with Dr. John Harley, tried the effect of the inhalation of the new anæsthetic upon a frog. The circulation in the web of the foot was observed by the microscope throughout the process. It was seen to cause a considerable amount of irregular muscular action, and a very decided contraction of the capillary arteries. A state of torpor was then induced for three-quarters of an hour, but reflex action was not wholly abolished. Experiments were made upon dogs and guinea-pigs. In these there was considerable muscular agitation at the outset. Deep anæsthesia was slowly produced, but, once induced, continued very profound until death. The post-mortem signs were, complete collapse of the lungs and distension of the right side of the heart, so that the organ assumed a globular form. The sensations produced by the inhalation of the bichloride of carbon are at first very agreeable: there is a pleasant sensation of warmth, and, as the author thought, a freedom from the vertigo, such as is produced by chloroform. Dr. Sansom has employed it in cases of midwifery. It was readily inhaled: it mitigated the pains, and in one case almost completely abolished them; it did not interfere with consciousness. In reviewing the relative merits of the two anæsthetics, the author considered (1) that chlorocarbon has the advantage over chloroform in its being inhaled with greater comfort; it is not susceptible of decomposition with the formation of deleterious chlorine compounds; and its cost will probably be considerably less. Being much less volatile than chloroform, it will probably be best administered by pouring it upon a sponge wrung out in hot water. (2) It is, during its early stage of action, a powerful stimulant to the circulatory system. It will probably be especially valuable in midwifery, for it abolishes pain without affecting consciousness, and its tendency is certainly to increase muscular action. (3) It is not advisable to induce deep narcotism by means of this agent. Its profound effects are very persistent, and it is eliminated from the system slowly.—*Lancet, March* 17, 1866.

Poisoning by Petroleum—Clemens, of Frankfort, relates a case of a patient who had taken about two-thirds of a glass of petroleum, mistaking it for wine. He was immediately oppressed in his breathing, had palpitation of the heart and dizziness; the pulse was small, and the patient feared that he was losing his senses. He was treated with strong coffee, cold applications to the head, and fresh air; at the end of two hours he was able to go home alone.

It may be remarked that the patient had formerly, for some years, suffered at least as often as once in six months from attacks of gall-stone colic, but for a year and a half after the poisoning was not so affected.—(*Deutsche Clinik*, 1865, 1.)—*Viertel-Jahrschrift.*

Treatment of Gonorrhœal and Purulent Ophthalmia.—Mr. Ernest Hart of the St. Mary's Hospital recommends for the treatment of these affections, weak alum lotions (three grains to the ounce); the spray-douche, with the local application of the diluted nitrate of silver stick to the mucous lining of the lids.

On the Nature of Mucous Tubercles in the Region of the Vulva and Anus in Prostitutes.—In investigating the conclusions of Prof. Thiry, of Brussels—(who observed in regard to these morbid growths: 1. That they arose simply from want of cleanliness and abuse of coition, and that they demanded a purely local treatment; 2. That where ulcers do not at the same time exist, they are not virulent; and 3. That constitutional syphilis was not observed, unless there were ulcers seated on the tubercles, ending in induration)—*Dr. G. B. Soresina* made some observations which were continued for nineteen months in the Syphilitic Hospital in Milan. He watched the mucous patches occurring in the region of the genitals and anus, and treated them with simple lotions of pure water, cauterized the ulcers, and retained the patients under observation for a number of months; twenty-five cases thus observed, taught him that mucous tubercles often heal with simple lotions of water. With the exception of those cases where the disease was very extensive, the cure was complete in twenty days. Of twenty-two cases of mucous tubercles, two were only followed by secondary syphilis, although the patients were continued under observation for eighteen months. *Dr. Soresina* believes that we may conclude that mucous tubercles are not of a syphilitic nature, but a local process easily cured by cleanliness, and that it is caused by local irritation. The second proposition of Prof. T., however, cannot be maintained, since in three cases where infection experiments were made with virus from the dry mucous tubercles, they were successful;

but in two they failed. Dr. S. concludes that mucous tubercles occurring in these parts may be divided into two classes: one, and the larger one, which disappears after a purely local treatment, and is an unimportant local affection; while the other belongs to constitutional syphilis. He believes, however, that the mucous tubercles in the region of the genitals of prostitutes, while they may occur independently or in connexion with syphilis, are originally one and the same simple affection, arising from local irritation; and the nature is changed, just as a wound in a person affected with syphilis may take on the character of a syphilitic ulcer.—*Gazz. Lomb. and Prag. Viertel-Jahrschrift.*

Congenital Hypertrophy of the Tongue—Amputation.—Dr. Alfred Bolter of Ovid, N. Y. (*N. Y. Medical Journal*, Mar. 1866), relates a case of congenital hypertrophy of the tongue for which he successfully performed the operation of amputation. The patient was a girl a little over three years of age. "The tongue was protruding from the mouth to the extent of something more than an inch," and its exposed surface was blackened, dried, shrivelled, and covered with fissures, from which exuded considerable quantities of bloody serum. The organ was firm in consistence; was not unusually sensitive to the touch; and from its size the orifice of the mouth was nearly circular in shape. The patient being anæsthetized, the operation was performed by first passing a strong ligature through the body of the tongue, and drawing the organ forwards. A straight, sharp-pointed bistoury was then thrust underneath, and pushed obliquely backwards and upwards, bringing out the point of the instrument near the median line, and cutting obliquely outwards towards the canine teeth. Through the left flap thus formed a double ligature was passed laterally. The knife was again thrust through the organ, and a corresponding flap on the right side formed, leaving a central septum uncut until the vessels, two in number, were tied. This part was then severed, and the V-portion removed. The two forked extremities of the tongue were next joined together by passing the double ligatures laterally through the right flap, and tying the respective strands one above on the dorsum of the tongue, and the other underneath. The operation was finally completed by joining the two extremities of the flaps by a simple suture. The piece removed was one inch and five-eighths in length, one inch in vertical thickness, and five inches and five-eighths in circumference. The child quickly recovered, and at the end of the tenth day the ligatures were all removed, and the parts nearly healed. The lips could, at the time the report was made, be entirely closed, and the teeth nearly so. The hæmorrhage attending the operation was very inconsiderable.

Remarkable Instances of Poisoning by Carbonic Acid Gas.—The following remarkable instances of poisoning by carbonic acid gas (*British Medical Journal*) have lately been investigated in Liverpool. A fine new iron ship, Armadale, arrived at that port in September; was lying in the Huskisson Dock in charge of a shipkeeper:—"The man who was first placed in charge of the ship lived on board, and slept six weeks without sustaining the least harm in the very bunk in which three shipkeepers subsequently met their death. This man was succeeded by another, who passed his nights in the same place safely for a fortnight; but was found dead on a Friday morning. That evening another man was sent in his place, and he was found next morning lying insensible in the bunk; he was removed to the Northern Hospital, and died on the following Tuesday. A third shipkeeper, who had been sent on board on the Saturday, was found dead about three o'clock the next morning. At the inquest on the bodies of the two last victims, medical evidence was given as to the cause of death from poisoning by carbonic acid gas. The *post-mortem* appearances in both cases were similar; viz. congestion of the brain and lungs. The heart, especially the right side, was filled with fluid blood. The other organs were healthy. The age of the men was about 60 years. The circumstances which led to the accident were explained as follows by the medical witnesses who inspected the vessel. On the deck was a wooden house, well built, and almost air-tight, the doors and windows being accurately fitted. It was divided by a bulkhead into two portions, one of which contained bunks for sleeping, and the other a galley for cooking, which contained an American stove of a peculiar construction. The two compartments communicated by a doorway with a half-door, thus being virtually one room. The stove had been used for a coal fire during the entire period; and it was suggested by Dr. Trench, who had examined the ship, that the high winds which prevailed at the time, drove back into the room where the men were the carbonic and sulphurous acid gases generated by the stove."

Improvements in Instruments.

LENTE'S OINTMENT SYRINGE.

Dr. F. D. Lente, of Cold Spring, N. Y., has lately devised a simple and efficient instrument for the application of ointment to the cavity of the uterus. Although more particularly adapted to this purpose, it is capable also of a wider range of usefulness, and can be employed in all those cases in which it is necessary to apply ointments directly to parts that are deep-seated and beyond ordinary reach. It can, for instance, serve a good purpose in the treatment of deep-seated sinuses, and of ulcers in the different canals of the body.

It consists of a hollow stem made of pure silver, to allow of its being easily bent at any curve. This tube is provided with a handle which is likewise perforated in its long diameter. The handle, which is of gutta percha, is scored on one surface to indicate the situation of the concavity of the curve of the stem, as well as to allow of a firm grasp between the fingers. Into the extremity of the handle, the nozzle of an ordinary hard rubber syringe is made to fit; when the instrument is to be used the particular ointment is made of a proper consistency by heat or otherwise, and the syringe being detached, is filled with it.

The ointment is next thrown into the tube, until it completely fills it, and, if necessary, the syringe is afterwards replenished. The stem is then introduced into the cavity of the uterus or sinus, as the case may be, and by pressure upon the piston the ointment is made to ooze from the extremity of the tube, and come in contact with the surface against which it may be applied. The bulb upon the tube, which is about an inch and a half from the extremity, enables the operator to form an estimate of the distance to which the instrument is introduced. A solid stem of a flexible material accompanies the instrument, and is introduced into the tube when it is to be curved, in order to prevent any abrupt bending.

Correspondence.

MEDICAL INSTRUCTION IN PHILADELPHIA.

PHILADELPHIA, APRIL 9TH, 1866.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In my last (p. 69), mentioning the auxiliary chairs recently established in the Medical Department of the University of Philadelphia, the name of Dr. Henry Hartshorne, Professor of Hygiene, was omitted by the types. I hasten to make the correction, the more so as Professor Hartshorne is lecturing upon a very important branch too much neglected in the study of medicine; and from the talents of the lecturer, this course will probably be one of the most attractive and instructive delivered this summer. Apropos of these courses at the University, they are now in full operation, and attended by large and appreciative audiences. It must afford a great deal of gratification to all concerned, to see among the hearers a very large proportion of the Alumni of the Institution, and it is no unusual sight to see seated on those old benches so many wearers of grizzly beards and slowly silvering heads.

The special courses at the Jefferson Medical College are likewise well attended, the classes at the two institutions being about equal in numbers. The department of Clinical Surgery is under the charge of Professors Gross and Pancoast, who always attract very large classes. This Surgical clinic at the Jefferson Medical College is without doubt the largest and most instructive Surgical clinic in the country. The reputation of Professors Mütter and Pancoast in years past, and of Professors Gross and Pancoast during the past ten years, has attracted patients from all portions of the country, and a class of patients, too, that are rarely seen at any other college clinic. A great many more cases present themselves than can be operated upon before the classes, and consequently a large field is afforded for the selection of such cases as shall be most instructive to the students. The hospital beds in the College building provide temporary accommodations for patients whom it may be necessary to retain.

The department of Clinical Medicine is being administered under the charge of Dr. J. Da Costa, one of the attending physicians at the Pennsylvania Hospital, and one of the most popular as also one of the most capable clinical instructors that we have. Of course, the medical clinic of a college without extensive hospital accommodations, cannot offer an opportunity for the study of acute and protracted cases equal to the wards of a large and successful hospital; but the field for the study of chronic, walking medical cases is very large, and will be used to advantage.

There are no clinics being held at the medical department of the University, but the usual Dispensary practice is continued throughout the year. The clinics at the various hospitals are all well attended.

At the Pennsylvania Hospital, Dr. Adinell Hewson, the attending surgeon on duty, has been employing the endoscope a good deal in the diagnosis and treatment of affections of the urethra and bladder, and with satisfactory results. This instrument has as yet been but little employed in this city, and the article of Dr. Van Buren in the last number of the RECORD, accompanied as it is with explanatory illustrations, will give many of our practitioners their first insight into its character and method of employment. At the recent meeting of the College of Physicians of this city, on Wednesday evening last, Dr. John Brinton exhibited an endoscope, and had prepared a specimen; so that employing the instrument as if in use for actual surgical purposes, a pin placed transversely across the urethra, deep down, was distinctly perceived. At this College of Physicians, Dr. John A. Packard has begun the second course of the "Mütter Lectureships," his subject being "Fractures of the Upper Extremity." The resources of the Museum of the College, as well as those of the lecturer himself, will enable the course to be thoroughly illustrated.

At the Wills Ophthalmic Hospital, Dr. A. Douglas Hall, the attending surgeon on duty, is delivering a course of lectures on "Ophthalmic Medicine and Surgery," besides giving clinical instruction twice a week. A very convenient lecture-room, with dark room for ophthalmoscopic examinations, has been constructed; and although this institution is at a distance from the usual "students' quarters," the clinics are well attended. This is an excellent school for the study of ophthalmology, and the attending surgeons have acquired considerable celebrity in their specialty.

The "Nurses' Home," an institution for the instruction of suitable females for the duties of the "monthly nurse," affords, under the charge of the attending and consulting obstetricians, a great number of cases for advanced students desirous of becoming initiated into the practice of obstetrics, while there is attached to the institution a clinic for the DISEASES OF FEMALES, always well attended by sufferers and students.

There is very little of general interest going on among the profession at large. There is a good deal of talk now and then, when several physicians happen to meet together, about cholera and trichiniæ, but nothing new or startling seems as yet to have been elicited.

The determination evinced by the profession of New York to insist upon the adoption and enforcement of certain sanitary regulations calculated to protect the general health of the city, in case of the breaking out of contagion, ought to stimulate the profession here and elsewhere to similar energy.

The prospects are, that the professional interests of Philadelphia will be well represented at the coming meeting of the American Medical Association.

Yours, &c., C. J.

Obituary.

DEATH OF DR. LEMAIRE ZABRISKIE.

"AT a special meeting of the Bellevue Hospital Medical Union, held March 30, 1866, the following resolutions were unanimously adopted:

Whereas, It has pleased Almighty God to take from our midst our friend and associate, DR. LEMAIRE ZABRISKIE, through disease contracted during his residence in this hospital,

Resolved, That we sincerely deplore the loss of one whose enthusiasm and noble disposition led him to sacrifice his life in the performance of his professional duties; and that in his death the profession has lost an earnest and faithful member, and ourselves a sincere and valued friend.

Resolved, That we tender to the family of the deceased our most heartfelt sympathies in their bereavement, and that we bear witness to the many virtues which endeared him to all with whom he was brought in contact.

Resolved, That as a mark of respect, the members of this Society attend the funeral, and wear the usual badge of mourning for thirty days.

Resolved, That we transmit a copy of these resolutions to the family, and that they be published in the New York *Times* and *Medical Record*.

EDWARD FARRELL, M.D.,
W. W. JOHNSTON, M.D.,
S. AMABILE, M.D.,
Committee.

New Publications.

MEDICAL ELECTRICITY, EMBRACING ELECTRO-PHYSIOLOGY AND ELECTRICITY AS A THERAPEUTIC, WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE, ETC., by ALFRED C. GARRATT, M.D., Fellow of the Mass. Medical Society, Member of the American Medical Association. Third edition, revised and illustrated. Philadelphia: J. B. Lippincott & Co., 1866.

A MANUAL OF THE PRINCIPLES OF SURGERY BASED ON PATHOLOGY, FOR STUDENTS, by WM. CANNIFF, Licentiate of the Medical Board of Upper Canada; M.D. of University of N. Y., etc. Philadelphia: Lindsay & Blakston, 1866.

A LECTURE ON SANITARY SCIENCE; ITS IMPORTANCE AS A BRANCH OF GENERAL EDUCATION, by PROF. A. B. PALMER, A.M., M.D.

A REPORT UPON THE EPIDEMIC OCCURRING AT MAPLEWOOD, YOUNG LADIES' INSTITUTE, PITTSFIELD, MASS., by PROFS. PALMER, FORD, AND EARLE.

ANNUAL REPORT OF THE RESIDENT PHYSICIAN OF N. Y. CITY LUNATIC ASYLUM, BLACKWELL'S ISLAND, N. Y., for the year 1865.

DIARRHŒA AND CHOLERA, THEIR ORIGIN, PROXIMATE CAUSE, AND CURE THROUGH THE AGENCY OF THE NERVOUS SYSTEM BY MEANS OF ICE, by JOHN CHAPMAN, M.D., M R.C.P. Philadelphia: J. B. Lippincott & Co., 1866.

CHOLERA: ITS CAUSES, SYMPTOMS, AND TREATMENT, by J. P. BATCHELDER, M.D., N. Y.

APPLICATION OF SUTURES TO BONES, IN RECENT GUNSHOT FRACTURES, WITH CASES, by BENJAMIN HOWARD, M.D., N. Y.—(From Vol. xlviii. of the Medico-Chirurgical Transactions.)

DESCRIPTIVE CATALOGUE OF FLUID AND SOLID EXTRACTS IN VACUO; ALSO CONCENTRATIONS AND OFFICINAL PILLS. Prepared by H. Thayer & Co.

REPORT OF THE PENNSYLVANIA HOSPITAL FOR THE INSANE; 1865.

Medical News.

APPOINTMENTS.

N. Y. HOSPITAL.—Drs. William W. Hoppin and John F. Gignoux have been appointed Resident Surgeons, and W. F. Thurman, Resident Physician. Drs. Bell and Washburn are the Junior Assistants to the Surgical, and Dr. Shelding, Junior Assistant to the Medical Division.

BROOKLYN CITY HOSPITAL.—Drs. Geo. W. Grover and J. W. Clemensha have been appointed Resident Physicians to this institution.

PERSONAL.

DR. B. HOWARD, formerly of the army, and now of this city, has recently been elected a Fellow of the Royal Medical and Chirurgical Society of London. This honor was conferred upon him shortly after the presentation paper to that body, "On the Application of Sutures to Bones in recent Gunshot Fractures, with Cases; also, remarks on their similar use in some other Fractures and Operations." Dr. Howard is well known to the profession in connexion with the method of hermetically sealing penetrating wounds of the chest.

DR. EDMUND R. PEASLEE, on the occasion of his retirement from the duties of the Woman's class in the Demilt Dispensary, received a well deserved recognition of his services for the past seven years, in the shape of a complimentary preamble and resolutions, passed by the Board of Managers.

DR. HENRY DRAPER has just published an illustrated text-book on chemistry for the use of schools and colleges.

WILLS OPHTHALMIC HOSPITAL (Philadelphia).—Dr. W. W. McCLURE has been appointed Resident Physician.

DR. WM. H. THOMPSON read a paper "On the Arabic Race," before the New York Historical Society on the 3d inst., in which he gave many instances of their literary genius and extraordinary achievements as great civilizers, when Christian Europe was sunk in ignorance.

THE CHOLERA AT HALIFAX QUARANTINE.—We learn, on going to press, that the steamship *England*, Captain Grace, from Liverpool on the 28th, *via* Queenstown on the 29th ult., for New York, arrived off Halifax, Nova Scotia, April 9th, with cholera on board, and that she has been there detained in rigid quarantine. The disease appeared on Tuesday, the 3d of April, when the first case occurred. Since then there were one hundred and sixty cases to the morning of the 9th. Fifty persons died. The ship took out twelve hundred and two passengers, and had a crew of one hundred men. Three doctors went on board from Halifax, and the passengers were to be cared for, some in the hospital ship and others in shanties erected on the beach. The passengers are mostly Germans and Irish. It is thought that the disease was brought from Germany.

THE CHOLERA DISAPPEARING FROM FRANCE.—The Department of State at Washington, D.C., has received official information from the United States consuls at Brest and Cherbourg, under date of March 9. The consul at Cherbourg states that from the 10th until the end of February there occurred fifty-eight deaths from cholera, making from the beginning of the epidemic up to date, 114 days, a total of 257 deaths from cholera, in a population of 40,000. The disease seems to have disappeared, as no deaths had recently occurred, and the Sanitary Board was issuing clean bills of health. The consul at Brest reports that the epidemic has at length retired, no case of cholera having appeared since March 1. The Minister of Commerce at Paris has also ordered clean bills of health to be issued.

THE CHOLERA has broken out with great virulence on the Rhine, and may be expected to spread over Germany, Holland, Belgium, and England, during the approaching summer.

THE STATE WOMAN'S HOSPITAL.—The City Council has revoked the provision of a grant of land heretofore made to the Board of Governors of the New York State Woman's Hospital, because the institution had never entered into its possession. The boundaries of the premises were 49th and 50th streets, 4th and Lexington Avenues.

EAST RIVER MEDICAL ASSOCIATION.—At the meeting held April 2d, the following gentlemen were elected members: Dr. James H. Anderson and Dr. William Murphy. The following were elected delegates to the American Medical Association: Drs. John Hart, Truman Nichols, and Dr. Montross L. Smith. Dr. William Newman will read a paper on Meningitis at the next stated meeting.

NEW YORK ACADEMY OF MEDICINE.—At the meeting held April 4th, Drs. J. S. Crane, J. J. Hull, and J. B. Reynolds were elected Resident Fellows.

AN EPIDEMIOLOGICAL SOCIETY, upon the model of the London Association, is proposed to be incorporated in this city. The names of Drs. C. A. Budd, J. M. Carnochan, C. Henschel, C. Ramsay, and W. H. Van Buren, are connected with the movement.

Original Communications.

REMARKS ON THE THEORY OF ELIMINATION AS APPLIED TO EPIDEMIC CHOLERA.

By Austin Flint, M.D.,

PROF. PRINCIPLES AND PRACTICE OF MEDICINE, BELLEVUE HOSPITAL MEDICAL COLLEGE, N. Y.

The probability of an impending visitation of epidemic cholera invests with extraordinary importance, at the present time, all practical questions pertaining to this disease. The minds of many members of the profession are unsettled respecting the principles of treatment, and the pathological views which may be entertained must largely influence therapeutical measures, especially with those physicians who will be called upon for the first time to encounter the epidemic. Hitherto the phenomena of the disease and the fatality have been in great part attributed to the loss of the constituents of the blood which are contained in the choleraic dejections. This pathological view, of course, dictates, as a fundamental principle of treatment, an endeavor to arrest, as speedily as possible, the intestinal effusion. Measures for this object have been generally considered as the foundation of the treatment which promises most in the way of success.

Since the commencement of the present march of the epidemic a very different pathological view has been advocated, especially by Prof. George Johnson, of London. In a series of papers republished from the *British Medical Journal* in the *Philadelphia Medical News*, Prof. Johnson undertakes to establish the theory that the choleraic vomiting and dejections are eliminative; that the special poison of cholera, existing in the blood, is expelled by means of the gastro-intestinal effusion. As a necessary conclusion, if this theory be true, vomiting and purging are to be encouraged rather than restrained; the measures of treatment hitherto deemed of prime and essential importance must be hurtful, and in their place emetics and cathartics are to be substituted. Prof. Johnson does not shrink from this conclusion, but boldly reasons in behalf of the measures just named.

In the belief that the former of these views accords with existing pathological knowledge, with clinical experience, and with common sense; and believing, also, that the practice which the theory of elimination requires is likely to lead to an incalculable loss of life, the attention of the reader is solicited to some remarks suggested by the reading of Prof. Johnson's papers. The brief space which the Editor of the "Record" has assigned to me will not allow an extended discussion of the theory of elimination as applied to epidemic cholera; I can only offer a few hints with the view of giving a direction to the reflections which, at the present time, it behoves physicians to bestow upon the subject.

Prof. Johnson dwells with emphasis on the importance of avoiding erroneous theories respecting the pathology of cholera. No one certainly will differ from him in this. But inasmuch as a theory must be entertained, the important question is—What is the theory which commends itself to reason and experience? The doctrine of elimination is certainly not less theoretical than the doctrine hitherto held. It cannot be claimed that the truth of the former is demonstrated; in fact, reasonable as may be the theory of elimination in other applications, facts going to establish it upon incontrovertible ground are yet to be ascertained. Let the reader reflect upon the absence of the positive proof of elimination in the various diseases to which this doctrine is generally applied, such as rheumatism, gout, the essential fevers, etc. On the other hand, facts do certainly show that important constituents of the blood, in greater or less quantity, are contained in the choleraic effusion. There is, assuredly, more of conjecture in the theory of elimination than in the doctrine that the phenomena of the disease and its fatality are in great part attributable to the loss of blood-constituents.

Prof. Johnson places much stress upon the want of a constant relation between the symptoms of choleraic collapse and the loss of fluid by vomiting and purging. He cites the testimony of different observers, that collapse occurs in cases in which the characteristic dejections are small and even wanting. All who have seen much of cholera must have met with such cases. It is, however, an error to say that, as a rule, the choleraic phenomena and the danger from the disease are not in proportion to the quantity of intestinal effusion. In the larger proportion of cases there is an obvious relation between the loss of fluid by vomiting and purging (especially the latter) and the symptoms of collapse. This is purely a matter of clinical observation, and I appeal to those who have had large experience for the correctness of the statement just made. Admitting that this relation is not constant, how are the exceptions to the rule to be explained? *First*, the amount of liquid expelled from the stomach and bowels does not always represent the quantity of effusion. A large amount of liquid may be retained within the alimentary canal. This fact has been repeatedly observed; the loss is of course the same, whether the liquid be retained within the canal or expelled. *Second*, the amount of liquid effused does not represent fully the loss of important blood-constituents. The amount of liquid depends on the quantity of water. Now, the loss of water alone is, doubtless, highly important, but the organic and mineral substances which the effused liquid carries with it are of greater importance, and these are by no means necessarily in proportion to the quantity of water. *Third*, it is a well known truth of wide application, that the effects of identical causative morbid conditions are widely different in different cases. All persons, for example, do not bear equally well the loss of blood; a hæmorrhage which one person will tolerate well, will destroy the life of another person. It is perfectly consistent with the truth just stated, that a small amount of choleraic effusion will sometimes give rise to collapse and death, and that a large amount of effusion does not always prove serious.

Prof. Johnson argues in behalf of the theory of elimination, by contrasting the effects of hæmorrhage and of profuse suppuration with the phenomena of choleraic collapse. The analogy between the rapid effusion in cholera and the expenditure of blood-constituents in the production of pus, is too strained to require consideration. Between the serous effusion of cholera and hæmorrhage, there is an apparent resemblance; but a little consideration suffices to show that the resemblance is apparent rather than real. After hæmorrhage the blood is simply impoverished; its constitution is not so altered as to interfere materially with its circulation; the red corpuscles which remain are not incapacitated for the exercise of their functions; the conditions for animal heat are not notably affected; and the processes of nutrition, secretion, and excretion, are not arrested. On the other hand, the rapid loss of the elements which compose the effusion in cholera, occasions a widely different condition of the blood; it circulates with difficulty; the red corpuscles fail to perform their functions; the conditions for animal heat are greatly affected, and the processes of nutrition, secretion, and excretion are in a great

measure arrested. The difference between the remote effects of hæmorrhage and the phenomena of choleraic collapse is not greater than that between the immediate effects of the loss of blood and of the blood-constituents which are contained in the intestinal effusion in cholera. The argument, therefore, based on the contrast of these remote effects is of no weight.

Another argument is in like manner disposed of, viz. that based on the difference between the effects of remedies in cases of hæmorrhage and cases of cholera. The difference between the condition of the blood in cholera and after hæmorrhage sufficiently accounts for the fact that the remedies which are efficacious in preventing fatal syncope from the loss of blood may not be successful in curing patients in choleraic collapse.

Finally, Prof. Johnson contends that measures which arrest the intestinal effusion are not curative in cholera. Here is an appeal to clinical facts, and let competent observers testify with respect to these facts. That opiates and other remedies which are sometimes successful in arresting vomiting and purging, after the phenomena of collapse have occurred, do not always, or even often, effect a cure, by no means proves that it is not of vast importance to secure the successful operation of these remedies prior to the occurrence of collapse. It is undoubtedly true that the choleraic evacuations sometimes cease spontaneously in the stage of collapse, and the patient dies. I have met with examples. Moreover, it must be admitted that opiates and other remedies given in large doses after collapse has taken place may do harm. The blood-lesions existing in the condition of collapse, unhappily render recovery impossible in a large majority of cases. But measures which succeed in promptly arresting vomiting and purging (especially the latter) after the diagnostic character of cholera is fully manifested, and before collapse has occurred, do effect a cure in a certain proportion of cases. This statement is remarkable if the efficacy of treatment can ever be deduced from clinical facts; that is, if it be ever logical to infer a *propter hoc* from a *post hoc*. As this is a point to be settled by reference to experience, it is to be hoped that the profession may have the testimony of those who have had abundant opportunities of observation.

The importance of the bearings of the theory of elimination on the treatment of cholera, cannot be too much considered. If this theory be accepted, it is never desirable to interfere with the vomiting and purging; but, on the contrary, both are to be encouraged. To think of this practical result of the theory must cause a shudder to one who holds to the doctrine that the great source of danger in cholera is the loss of the blood-constituents contained in the choleraic effusion. It is to be feared that the influence of the able papers by Prof. Johnson on the minds of practitioners will lead to the loss of not a few lives.

Another practical result legitimately follows the acceptance of the theory of elimination, viz. the premonitory diarrhœa is not to be arrested. We need not go beyond the consideration of this result to disprove the theory. Certainly there is no fact in practical medicine better established than that cholera is prevented by arresting the diarrhœa which so often precedes the development of the disease. Let this fact have its due weight in the reflections of physicians on the theory of elimination. The impossibility of reconciling this fact with the theory, renders the latter untenable.

Oxygen.—It has been stated by Prof. Faraday, that the total quantity of oxygen daily required for the whole world is 7,142,857 tons.—*Scientific American.*

PAPERS UPON VENEREAL DISEASES.

By F. J. BUMSTEAD, M.D.

No. II.

The Two Diseases now Recognised in the "Syphilis" of Fifteen Years ago (1851). *Their Names.*

In a preceding paper we endeavored to place the present recognition of two diseases in the so-called "syphilis" of a few years ago upon its proper basis, viz. the perpetuity in successive generations of a local character upon the one hand, and of a general or constitutional character upon the other. We also attempted to show that proof of this kind, viz. *constant difference in the fruit or adult forms*, was always recognised by naturalists as indicative of generic and specific differences in the various departments of Natural History. In this light, it appeared that the objections frequently adduced against the more recent ideas of venereal pathology, founded upon the inability of the observer to distinguish the two diseases in question in their young and immature forms, are narrow-minded and valueless. Several instances of such false reasoning were given, One or two additional ones of recent occurrence, in which the same is implied if not expressed, may not be out of place.

In a very kind review appearing in the (London) *Lancet* of February 24th, 1866, it is said: "Dr. Bumstead applies the word chancre to what has been hitherto known as the hard sore. This is all very well and nicely squared; but we unfortunately find, in practice, that sores which look very much like chancroids, are (though exceptionally) followed by secondary symptoms; and hard chancres have been known to leave the organism uncontaminated. Mathematical precision is very desirable when it can be obtained without offending truth." To which I would add that "Mathematical precision" *in the initial lesion* is not claimed, and has nothing to do with the question of a unity or plurality of poisons.

Again, to come nearer home, at a recent examination for the house staff of one of our prominent hospitals, the following question was put by one of the examining surgeons, who (unless he designed to give a "catch-question") was as much adrift as the candidate was in his answer.

The question was this: "Is a soft chancre ever followed by general syphilis?"

Candidate (who had been "posting" on venereal) boldly answers, "No, sir;" and is very much chagrined at the reply; "Well, sir, you will find yourself very often mistaken in practice, if you believe that."

Granted the principle that as in the vegetable kingdom, so in venereal diseases, "every tree is known by his own fruit," we might now properly consider the effect of grafting one species upon another, and see what hybrids may thus arise. This point, however, will better come up hereafter. For the present, without being able to claim any blood-relationship with either of the two diseases considered—and for this we trust we are sufficiently grateful—we desire, if we may be allowed to act as sponsor on the occasion, to have a word to say about their names.

There is much "in a name," Juliet's well known interrogatory implying the opposite, "to the contrary notwithstanding." For instance, as regards our present subject, the want of a due appreciation of the character of the proof upon which these two diseases are recognised as distinct, led to the adoption of erroneous or defective names, which in their turn have done much to perpetuate the old errors. The writer of the present

article cannot claim to have been exempt from this fault in his earlier writings on venereal.

Before Bassereau's time, the initial lesions of the two diseases had the common name of "chancre;" but a qualifying adjective was generally prefixed, and we talked and read of the "soft," "hard," "indurated," etc., "chancre." After Bassereau's work appeared, the same nomenclature was for a time retained with some slight modification. The sore in the one case was a "simple chancre;" the sore in the other an "infecting chancre." Thus the truth of the totally distinct nature of the two diseases was but partially recognised, and the error was committed of supposing that the so-called "infecting chancre" was the *cause*, and not, as is the fact, the *result* of infection. We also heard discussions upon the "unity or duality of syphilis," "the unity or duality of the chancrous virus," etc., etc.,—expressions the only tendency of which could be to conceal the truth and mislead the hearer.

To the credit of Bassereau, however, be it said, that these terms and expressions did not originate with him, but with his followers. He alone at that time, it appears, comprehended to the full extent his own discovery, which he expressed in terse and simple language, without any attempt whatever to come before the world as an innovator, or otherwise than a student of science. Take for instance the proposition in which he sums up the results of his investigations, and which reads as follows:

"*Whenever a person has a chancre, and afterwards general syphilis, the generalization of the disease is first of all due to the fact that the person from whom the contagion came had a chancre which was necessarily followed by general symptoms.*"

I confess to no little admiration of this man, in common with all those who first studied his work with no better light than was previously afforded by the literature of venereal diseases, prior to 1852. The monogram which he wrote is modestly entitled, "*Traité des Affections de la Peau Symptomatiques de la Syphilis, par P. I. A. Léon Bassereau, Docteur en Médécine de la Faculté de Paris,*" etc. One might read this title upon the shelves of a bookseller a dozen times, and think a treatise on "Skin Diseases Symptomatic of Syphilis," too dry to be worth purchasing. But this same treatise upon so dry a subject is, in accurate investigation and scientific deduction, a model for imitation; and, transcending its title, it affords the basis of Venereal Pathology, as at present generally recognised. What has become of Bassereau personally since the publication of his work I do not know, and I should be grateful to any of our American students in Paris to inform us. I am not aware that he has since appeared in print, but his name will always be known as the founder of the school of Venereal Pathology, commencing, or rather revived, in 1852.

"*Mais, revenir à nos moutons,*" as Bassereau himself would express it, we have other plans of nomenclature to consider. About two years after Bassereau came Clerc, another Parisian pupil of Ricord, who, strange to say, has had with many the credit of Bassereau's discovery. Clerc regarded the two diseases referred to as merely different phases of one and the same affection, and thought he had discovered the key to these supposed modifications of the big pox in the variola and varioloid of the small pox. Clerc's idea was, that if a person already under the influence of the syphilitic virus chanced to be inoculated again, the result would be a local sore; and that the virus would be so modified that it would, in succeeding generations, when transmitted from one individual to another, go on producing a local and not a constitutional disease. To this local sore he gave the name of "chancroid," following the analogy of the term "varioloid," which we know to be variola, modified by the partial protection of vaccination or a previous attack of small-pox.

Now Clerc was both unfortunate in his analogy and at fault in his facts. Thus, regarding the former, he assumed that varioloid, if communicated to an unprotected person, would necessarily perpetuate itself in its modified form, which is not the case. And, as regards the latter, a number of instances were soon collected by various observers, showing that the syphilitic virus, when derived from a second inoculation upon a person already partially protected, and when communicated to an individual hitherto intact, would produce all the general manifestations of syphilis. We may of course, however, retain Clerc's term without adopting the theory in which it originated.

We next come to the nomenclature advanced by that eminent, but somewhat visionary Syphilographer of Lyons, M. Diday, who, from some fancied resemblance between the locale of the two diseases recently known as syphilis, and chicken-pox or varicella, calls the former *chancrella*. He still employs the word "chancroid," but applies it to the somewhat modified form of sore resulting from syphilitic inoculation of a person already partially protected from syphilis by a previous attack. Diday's terms, however, are rarely met with except in his own writings.

Finally, the German school of to-day would separate the word "chancre" entirely from syphilis, and apply it to the "local contagious ulcer of the genital organs."

These various systems of nomenclature may be thus tabulated:

The "syphilis" of fifteen years ago includes:

A constitutional disease, which now monopolizes the name of syphilis, and the initial lesion of which, except among German writers, is known as a "chancre."	A local contagious ulcer (the old "soft" or "simple" chancre," the "chancroid" of Clerc and others, the "chancrella" of Diday, the "chancre" of the modern German school).

In deciding between these names, there are several considerations which present themselves:—

In the same way that, in the early part of the present century, gonorrhœa was lopped off the "syphilis" so-called for three hundred years, so in our own time and generation, another disease, like gonorrhœa local in its character, has been amputated.

Naturally, the most prominent affection, from which the severance has been made, retains the prominent name, to wit, "syphilis." And let it be distinctly understood that, if the modern views of venereal pathology be correct, every phase of the constitutional disease referred to is syphilis, and nothing else.

Its earliest manifestation is as sure an indication of the poisoning of the system by the syphilitic virus as any of the so-called secondary or tertiary symptoms would be. We might then appropriately designate the lesion which first appears at the point of inoculation as "the initial lesion of syphilis," and it appears to me that the oftener this expression is used, and the more our ears become accustomed to it, on some accounts the better. At the same time it is a matter of convenience, and almost of necessity, that this initial lesion should have a name expressed in a single word, and not in a paraphrase; and such name can only be found in the term which has been sanctioned by long usage, and which in the minds of most medical men is intimately connected with syphilis, viz. "chancre."

It remains then only to determine what we shall call the other, to wit the local, disease originating in sexual intercourse. This disease manifests itself

only as a pustule and an ulcer. We may, to be sure, have accompanying inflammation of the neighboring lymphatics or ganglia; but this is either "virulent," in which case the virus has been taken up by the lymph-vessels and has struck root elsewhere, or else it is merely inflammatory or sympathetic, when it constitutes a complication rather than an integral part of the disease. The objections to call this ulcer "a chancre," as our German friends do, have been implied in the preceding paragraph.

Probably the association of the word with syphilis might be overcome by adopting it in this sense in our surgical text-books and special treatises upon venereal; but then, at much inconvenience, we are left without a convenient expression to denote the initial lesion of syphilis.

I can see no valid objection to Clerc's word, *chancroid*, which has already come into very general use, and which, as I judge from frequent conversations with medical men and medical students, is not liable to be misapplied. Of course Clerc's theory is valueless; but etymologically considered the word signifies "something resembling a chancre," and such the lesion in question often is. If yet the exception be taken that the word implies a connexion between two lesions which are totally distinct, the suggestion in a recent review of the writer's work in the *British and Foreign Medico-Chirurgical Review*, is a good one, viz. that we call this local sore "the contagious venereal ulcer"; the only objection thereto being, that we should thus express in several words what might better be expressed by one.

DISINFECTANTS.

By EDWARD R. SQUIBB, M.D.,

OF BROOKLYN.

The approach of summer, the general necessity for sanitary reformation, and the possibility of Epidemic Cholera, have concurred in causing an unusual number of inquiries for disinfectants, and the writer, in his connexion with the manufacture of chemicals, has had a sufficient share of such inquiries to warrant him in offering some of his views upon the subject for professional and popular consideration.

The general question is, "What is the best, cheapest, most accessible, and most easily applied disinfectant?" To this there is but one answer, since there is but one agency through which all these indications can be fulfilled, and that is simple cleanliness. All other disinfectants are but slovenly substitutes, inadequate at best, and sometimes useless. When writing of disinfectants in hospitals, Miss Nightingale says, in substance, that the mortality is more favorably affected by the simple expedients which yield cleanliness and fresh air than by any other means, and that, with careful attention to these, none other agencies are required. Now cities, and countries too, are but large hospitals, with classification and localization of diseases; with some wards less healthy than others; and with the same imperative necessity for the only effective agencies, and the same penalties for neglecting them.

If the whole community could but be impressed with the truth, that cleanliness in body, in clothing, and in diet, and cleanliness and plenty of fresh air in and about dwelling-places, are the only possible conditions of security to general health, and the only real disinfectants, there would not be the same tendency to seek for and rely upon imperfect substitutes; nor occasion for all the writing and research upon such subjects. At best, the so-called sanitary science is but a system of cleanliness, and its prime utility consists mainly in the art of applying effective knowledge of this virtue, which stands next to godliness, to the prevention and cure of general or epidemic disease. Like all other schemes of human construction, this art has its abstractions, which tend to lead it away from the simplicity of its dependence upon cleanliness; and the complicated means by which results are often, if not generally, sought for, have ingenuity, theoretical science, or some other form of advertisement, rather than practical utility to recommend them. Hence the various complex powders and liquids so much vaunted, and hence the question whether these are more effective than means far more simple and accessible. Each particular powder, liquid, and gas, undoubtedly has its special use in application to particular cases; but these cases are comparatively few, and of an individual character. None of these agents are adapted to general uses on the large scale, as affecting general health through the condition of the general atmosphere. Here the removal and prevention of filth,—that is cleanliness—alone proves disinfectant, since it is the decompositions which occur in stagnant filth that give rise to the emanations which always lower the standard of health and often produce endemic disease. When filth can neither be generally prevented nor removed, then arises the only real necessity for some means of modifying or preventing the hurtful emanations therefrom, and this is the legitimate sphere of the class of what may be called artificial disinfectants, in contradistinction from the natural disinfectant, cleanliness. But to treat the emanations independent of their source, is like treating an effect without reference to its cause, and is not rational, though often useful. When Nature, through the operation of her laws, cries "Fire!" it is not good practice to bend our energies too much upon putting the smoke out. This relation of cause and effect, and the means resorted to under this relation, divides these means, namely artificial disinfectants, into antiseptics, or disinfectants proper, which control the effect through the cause, and deodorizers, the principal though not the only effect of which is upon the emanations.

These emanations are always the results of complicated chemico-vital reactions of the nature of a fermentation, and these processes of fermentation appear to occupy that position in the great order of nature where the effects of vitality first begin to be seen to modify chemical action. In the great field of the progressive creation this appears to be the daybreak of the morning of Life. Shrouded in its dim indistinctness the primordial cell works its wonders in bending those laws which yield only to this mysterious principle of Life. Within the uncertain light of this misty domain, probably, lie the essential principles whose operation results in what we know as endemic and epidemic influences, contagion, and infection, leading to pestilence. In this initial stage of life the vital process is tender and delicate, and easily subjected to inscrutable modifications by atmospheric causes. Emanations which are sensibly the same even to the most minute scientific investigation to-day are harmless, to-morrow become pestilential, and again are modified and controlled. All that is surely and practically known of these chemico-vital reactions is that they occur in the decay of organic matters which contain nitrogen by a process of oxidation, and that the results are always detrimental to human health and life. According to the extent and character of these reactions their effect may be general in lowering the general standard of health, and rendering all departures from health difficult of management, or may have superadded to this the further effect of producing endemic or epidemic

disease of a special type. No more accurate definition of the word filth in its hurtful sense, can be given than to say it is nitrogenized organic matter in the process of putrefaction; and, as the aggregate of this filth increases or diminishes, so the aggregate of human health and life is increased or diminished, since the reactions which naturally occur in the filth, although subject to some modification and control, are yet dominant and inevitable. Only in proportion, then, as the total absence of filth in communities of mankind is a theoretical abstraction never realized, does the value of means for disinfecting that filth increase, and hence the great importance of the present inquiry in regard to disinfectants.

Masses of filth in that condition of moisture and warmth which is best adapted to produce and continue the putrefactive fermentation, have their baneful activity varied by every variation of moisture and warmth, as well as by many other agencies, and hence every such variation has an important effect upon the causation of disease, and becomes disinfectant or otherwise in proportion as it checks or accelerates the putrefaction. Increase the moisture to the extent of copious dilution with water, and the process is at once suspended, and the masses become for the time harmless. Diminish the moisture to ordinary dryness, and again the accumulations become temporarily in great measure harmless. Increase and diminution of temperature produce similar results, and if, on the one hand, carried up to about 180°, or on the other hand reduced to freezing, some of the most deleterious of the reactions are permanently arrested, and the processes must begin entirely anew.

Hence heat and cold even within the natural atmospheric limits exert very important influences; whilst artificially applied, as in steaming, boiling, baking, or freezing infected clothing or merchandise, they become, perhaps, the most powerful of all disinfectants available for such purposes. Heat, however, appears to be superior in its effects, as well as in facility of application; and although both destroy the fermentation and kill the acting generations of plants and animals, it is doubtful whether either the one or the other destroys the spores or seed from which succeeding generations may be produced.

The sensitiveness to external influences thus illustrated is a general characteristic of all the processes involved in these changes, and as a rule, all inorganic chemical compounds which are loosely held together; and all elements or compounds whose tendencies are towards further combination, interfere with or arrest these processes more or less permanently, and thus become disinfectants.

The prominent and essential characteristic of the putrefactive process is oxidation, and free access of atmospheric air is necessary to this oxidation; and yet the class of effective disinfectants comprises chemical agents of diametrically opposite action. As a rule the value of a disinfectant chemical is determined by its power either to oxidize or to deoxidize substances with which it is brought in contact, and whether it does the one or the other seems a matter of indifference as far as disinfectant results are concerned. For example, chlorine, iodine, and bromine are among the most powerful and certain disinfectants, and act as such by the avidity with which their vapors combine with the hydrogen of the watery vapor of the atmosphere to form their respective hydrides, thus setting free the oxygen of the water in the form of ozone, and becoming powerful oxidizing agents. The permanganates also owe all their properties as disinfectants to the large proportion of loosely combined oxygen they contain, and the facility with which they part with this to surrounding matters. Sulphates, as sulphate of iron, yield in the act of disinfection all their oxygen, and are reduced to sulphides, and are said not to be disinfectant at all if this separation of oxygen does not occur. On the other hand, among the most powerful of all disinfecting agencies known are the lower oxides of nitrogen and sulphur, whose tendencies are to abstract and appropriate oxygen from all sources capable of yielding it. Sulphurous acid and its salts are particularly effective, and when these have accomplished their rôle as disinfectants, they are found to have been converted into sulphuric acid and sulphates by an increase of their proportion of oxygen abstracted from the matters with which they have been in contact.

This contrariety in the essential chemical character of the most effective disinfectants cannot be explained in the present state of knowledge. It may be, however, that these delicate and sensitive processes and reactions are suspectible of being as easily arrested by over oxidation as by deoxidation, and that the presence of the resulting chemical compound may poison the pabulum against a recurrence of the same set of phenomena. It is a curious fact, having a very important bearing upon this whole subject of the causation of endemic and epidemic insalubrity, that although the admixture of powerful corrosive and deadly chemicals always destroys the existing generations of the microscopic plants and animalcula which play so important a part in these fermentations, yet such admixture seems sometimes only to have better adapted the soil and climate to another set of creatures, and the masses soon have a new order of animated nature. Whether these orders of life are alike in their tendency to insalubrity or not, or whether a particular order gives rise to particular epidemic diseases, or conditions tending to a particular type of disease, are questions of much significance and importance. The spores, or seed and ova, of all kinds and qualities of plants, animalcula, and of their connecting links, seem to exist everywhere, and each kind or order requires but its appropriate pabulum to develop it into active existence. Just as the agriculturist, by slight modifications of his soil alone, without seeding, does, at will, produce different vegetable species; or, for a still better illustration, as the Neapolitan gardener takes the scoria which has but recently been subjected to igneous fusion in Vesuvius, and by simply watering it gets from it a crop of edible mushrooms; so a set of natural phenomena, each in itself but a partial and inactive cause, finally concur in some locality, and, at some time, in their conjunction produce that condition necessary to start the train of hurtful decompositions and fermentations. Thence, from an established starting-point, the propagation is comparatively easy, and the increase is a geometrical progression until the whole pabulum of a city or of a nation may be invaded. A familiar example of this process is afforded in the making of fermented or leavened bread. It requires time, skill, and careful selection of proper materials to make the ferment or leaven afresh; or, in other words, a certain conjunction or concurrence of material, of moisture and of temperature, are absolutely requisite, as a pabulum or matrix, for developing the first generation of cells of the yeast plant from the spores which are floating about in the air, or present always in the materials. But a single generation, or even a single cell, once developed, the propagation is easy, and the increase vigorous and rapid, even in pabula not so accurately adapted to the process as the first had to be. Hence, a very small portion of this ferment or yeast incorporated with a large mass of dough, and subjected to a moderately well adjusted tempera-

ture, soon sets the whole mass into this same condition, so that a small portion of the mass mixed with another large portion of dough, communicates to it the same tendency to the same fermentation, but to no other variety of fermentation. But now, if a portion of the dough in this fermenting condition be frozen or baked, the process is not only arrested, but is destroyed, and hence baked bread, by being kept in a moist warm condition, is much more prone to undergo a new process of fermentation—namely, the acetous or putrefactive, than to take up again that particular fermentation which was destroyed by the heat in baking. Each one of these particular ferments—and the number already known is large—requires not only its particular matrix for its primary development into activity, but has the property of so exhausting or consuming its particular food in the matrix, that it becomes self-limiting in any given amount of matrix, and requires constant accessions of new material for its perpetuation; and a matrix once exhausted by a given ferment, or even partially exhausted, if the process be arrested, although left full of the spores of the first, is prone to undergo another and different fermentation, yielding a totally different set of products. That is to say, the reactions which occur in one natural order of phenomena are exhaustive, and the new conditions established by this exhaustion are thereby adapted to a new order. The soil and climate adapted to the yeasty fermentation are exhausted and impoverished by the plant, but are thus the better adapted to the starting of a new fermentation, and the sustenance of a new order of living beings. That is, the ferns and pterodactyls of a carboniferous era of these microscopic worlds have their soil and climate so modified by the natural order of changes, in which themselves play so important a part, that after a time their fossil remains only are left for the contemplation of succeeding orders and ages.

These examples and illustrations apply equally to the orders of successive creation upon the whole surface, through all the geological history of the terrestrial globe, and to those in the pile of filth at our doors. Time and space, so wonderful to us, have unknown relations to those laws which govern with the same unerring control the solar system and the microscopic cell.

(To be continued.)

A CASE OF RUPTURE OF THE BLADDER.

By CHARLES M. ALLIN, M.D.,

SURGEON TO THE NEW YORK HOSPITAL.

I REPORT this case, not because rupture or laceration of the bladder is a particularly rare occurrence, but because it presented certain peculiar features which rendered its exact diagnosis unusually difficult, and because I believe the treatment adopted—partly, it is true, with a view of perfecting the diagnosis—contributed largely to the prolongation of the patient's life, to an extent quite unusual in cases of this character.

M. H., a "longshoreman," forty years of age, an Irishman, was admitted to the New York Hospital at about two o'clock in the afternoon of January 10th, 1866. He stated that, between one and two o'clock of the day previous, while, in a playful manner, endeavoring to lift another man of about his own weight, and standing behind him, he slipped and fell backwards; the other man also falling heavily, and in a sitting position, upon the patient's abdomen. The bladder must have been distended by urine, as there had been no evacuation of the organ since early in the morning. He felt but little pain at the time; there was no faintness, and he did not suspect that any serious injury had been inflicted. A short time afterwards, however, he attempted to pass water, and finding that he could not, he walked to the office of a physician, who passed a catheter through the urethra and drew off a few ounces of bloody urine. No water had been passed afterwards, and as there had been no special desire to urinate, the physician had not been again consulted. Towards noon of the day following the fall, however, he complained of fullness about the bladder, and continued inability to pass his water, and his friends brought him to the Hospital.

When admitted, he did not appear to be suffering much pain; his pulse was but eighty, and of good strength, and his general appearance was good. There was a swelling in the lower part of the abdomen, corresponding in size and shape with that presented by an ordinary distended bladder. It was dull on percussion, was definitely circumscribed, and extended upwards about to the umbilicus, and laterally about four inches on the right, and nearly five inches on the left, side of the median line. There was no ecchymotic discoloration of the skin or recognisable œdema of the cellular tissue, and palpation revealed distinctly the presence of a fluid in the tumor. There was no extravasation, or abnormal appearance or sensitiveness, in the perineal region. With the finger passed into the rectum, though a sac containing fluid could be distinguished, there was not recognised an encroachment upon the rectal space corresponding, either in firmness or extent, with the swelling above the pubes.

Soon after his admission, about three ounces of urine, slightly bloody, were drawn away with a catheter. There was no difficulty in introducing an instrument of full size (No. 12) into the cavity from which this urine was evacuated, but, upon withdrawing it, the openings near its extremity seemed to catch in a laceration somewhere, though the exact position could not be made out. The desire to urinate was partially relieved, but there was no perceptible reduction in the size of the abdominal tumor.

The question presented was, of course, whether this distended sac containing a fluid was really the bladder, or an extravasation of urine resulting from a rupture of that organ. If it was the bladder, the urine evacuated by the catheter must have been contained in a sac outside of the bladder, and the catheter must have passed into it through a laceration of the urethra very near its vesical extremity. Were this the case, we should expect to find more evidences of extravasation in the perineum, and there would probably be no relief to the desire to urinate, after the cavity was evacuated. If the swelling was caused by extravasation of urine, from rupture of the bladder, it was singular that its form and extent should be so peculiarly defined. The location of the rupture must be somewhere in its upper portion, allowing the accumulation of the few ounces of urine which were withdrawn by the catheter, and must probably be limited to the bladder proper, the urine passing into the cellular tissue, and not into the peritoneal cavity; for, as before stated, there had been no shock or faintness, which almost always accompany such an accident.

During the first twenty-four hours after his admission, the urine was drawn off by the House Surgeon, two or three ounces at a time, at intervals of three or four hours. At the end of this time, there having been a consultation of surgeons called for another case, I asked those of my colleagues who were present to see this patient. Drs. Buck, Markoe, Parker, and Peters, examined him very carefully, and were equally divided in their opinions of the character of the tumor. We all agreed, however, in the propriety of making an explo-

ratory incision, either above the pubes, as in the high operation for stone, or through the perineum. The former plan was decided upon, and I accordingly made an incision, of about two inches in length, in the median line, and just above the symphysis pubis, down as far as the cellular tissue of the peritoneum. After passing through the skin, a clear fluid, having the smell of urine, slowly exuded from the tissues as they were divided, and, while with the finger breaking down the walls of the subperitoneal cellular tissue, there was a sudden gush of fluid, evidently urine, amounting to nearly three pints. Upon passing the finger now freely in every direction, it was found that the peritoneal cavity had not been opened, and the bladder could be felt collapsed and lying underneath the pubes. No laceration was recognised within reach of the finger, though its existence was, of course, no longer doubted. Though so large a quantity of fluid was thus evacuated, it was remarked as peculiar that the swelling did not subside but to a slight extent. The wound was left open to allow free exit to any further extravasation.

The patient recovered from the effects of the ether which had been administered, and from the operation, perfectly well, and, in a couple of hours afterwards, got up from the bed and passed some urine *through the urethra without assistance.* Subseqently, the urine was drawn repeatedly by the catheter; but, though he was directed to give notice when he desired to urinate, he persisted, when not closely watched, in passing it by the natural way.

His general condition continued very good until the 16th, when typhoid symptoms began to be manifested. During this time urine was almost constantly passing through the incision, and the abdominal swelling was rather increased, but less defined, and became œdematous in character. There was now some tenderness about the wound, and slight soreness over the abdomen, but no severe active peritonitis. His appetite and strength, however, began rapidly to fail; his tongue was dry; he became at first very restless, then delirious, then comatose, and on the 19th died, ten days after the reception of the injury.

A *post-mortem* examination was made on the following day. By extending the incision already made, it was found that the cellular tissue outside the peritoneum was in a sloughy condition, throughout the whole extent of the extravasation, which had dissected its way from the pubes to a little above the umbilicus, and far down on either side into the iliac regions. There was a laceration of the bladder, about an inch in diameter, in its left side, at about the junction of its upper and middle thirds. The edges were ragged and sloughy. The peritoneum had been pushed away, and not lacerated, but was itself now in a sloughy condition for some three inches in every direction, except downwards, around the opening of the bladder. There were, however, no evidences of general peritoneal inflammation. The bladder was considerably thickened and softened, and there was a copious diphtheritic exudation upon its whole internal surface. The position of the rupture of course afforded an explanation of the retention and evacuation by the catheter of so large a quantity of urine as has been repeatedly referred to.

A College of Dentistry.—A college of dentistry is about to be established in this city. The charter for the institution has already been granted by the Legislature, and the corporators named in the bill are as follows: Eleazer Parmly, Rev. Robert R. Booth, Dr. Wm. H. Allen, Dr. C. E. Francis, Dr. G. A. Mills, Dr. E. G. Ray, Dr. W. B. Roberts, Dr. Alexander N. Gunn, Dr. John Allen, and M. McN. Walsh.

Original Lectures.

ON CHOLERA.

By A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.

Lecture IV. Part I.

The Theories in regard to the Origin and Spread of Cholera. (Continued.)

I now come to say a few words of each of those theories which I stated to you had been advocated more or less extensively to account for the origin and spread of cholera. First, of the ozone theory. It is not my province to teach you what ozone is. It may be "a peculiar modification of oxygen,"—"oxygen in a highly electro-negative condition." It is a something which Dr. Robinson has stated exists normally in the air in the proportion of one part to ten thousand, and which he believes is necessary to the vitalizing action of the oxygen; and yet he recognises in it a cause of acute catarrh, and in larger quantity, the power to produce inflammation of the mucous membranes and congestive bronchitis. Professor Schönbein was, I believe, the first to call public attention to the benign qualities of this agent—particularly its power to destroy the impurities resulting from organic decomposition. This is the power which has been invoked as a protection against cholera. It is claimed that its absence is concurrent with the accession and increase of the pestilence, and that its return corresponds with the decline and subsidence; while with its continued presence cholera does not occur. The laws of ozone, as stated by Dr. Robinson, which favor these opinions are, first, that it is destroyed in large towns, and rapidly destroyed in crowded, filthy, and close localities; and second, that its vitalizing effects are destroyed by great heat of weather, as well as its power to render putrefaction harmless. (It is not an *antiseptic*, for it hastens the process of decomposition, while it deodorizes its products by combining with their ammoniacal elements.) It is claimed that in certain instances cholera has subsided after a severe thunder-storm; such storms restoring the exhausted ozone. When this has occurred, the storm may have happened at a time when the epidemic had exhausted itself. I can confidently assert that in the several epidemics which have visited this city, thunder-storms have been looked to in vain for any agencies that might diminish their fatality. During the prevalence of cholera in Lexington, Ky., in 1849, Professor Peters made daily observations to ascertain the quantity of ozone in the air, and did not find that it either diminished or increased materially with the increase or disappearance of the cholera. He did not find that at the time when the cholera was most fatal, there was more or less ozone than usual. In this conflict of testimony we are not required to believe that the absence of ozone is the cause of cholera, while there seems little reason to doubt that its presence is important in neutralizing the accessory influences of decay in organic matters; and it may be, as Dr. Robinson suggests, that diseases which have a putrefactive tendency are unfavorably influenced by the negative condition of the air. I will say in passing, that ozone has been charged with being a cause of cholera. But that is one of the many hasty opinions which get little support from an extended examination of facts.*

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* Mr. A. T. Hay (*Medical and Surgical Reporter*, March 17, 1866) expresses great confidence in the protective power of ozone. He

If we inquire for evidences that electricity, either in its positive or negative relations, is the cause of cholera, we shall find that we have no more definite information than we have in regard to the agency of ozone. It does not seem probable that we shall find in it anything that will explain the mode in which cholera is produced. In an excellent paper read by Dr. North before the Medical Association of the Eastern District of Brooklyn, lately published, a very lively account is preserved of the observations made by M. Andraud on the electrical conditions of the air in Paris during the cholera of 1849. A large electrical machine gave but the feeblest sparks up to the 8th of June, no matter what changes occurred in the weather. On that day the "sad and faithful interpreter of a great calamity," as he calls his machine, began to give larger sparks. "Towards evening a storm announced at Paris that electricity had reëntered its domain," and the next day still greater indications of its presence were given. In the six succeeding days it is claimed that the deaths from cholera fell from 667 to 355. Another observer, quoted by Dr. North, states that while cholera was prevalent in a particular town in Ireland, a large horseshoe magnet held the iron at the bottom with extraordinary force, and that the magnetic power was only diminished when the cholera abated and went to another town. Lamont at Munich could discover no fixed relations between the prevalence of cholera and the electrical conditions of the air. I do not think there is anything like uniformity to be discovered in the various electrical observations made in various countries in their relation to the disease. For the present, then, we must say that we cannot ascribe the disease either to the presence or the absence, excess or insufficiency of atmospheric electricity.

With regard to the theory that cholera depends upon a certain poison generated in the intestinal canal, and that the disease is excited by the direct contact of this material with the intestinal mucous surfaces, it should be remembered that Dr. Snow was a resident of London, where the water-supply has long been a subject of great complaint. For a part of the city it is obtained from the river Thames, the grand sewer of all the town, and at a point below the head of tide-water; so that twice a day the filth of the city flows in that direction. He may be excused for bringing grave charges against such "drinking-water," for during an epidemic it could hardly fail to be a vehicle of at least minute quantities of the evacuations. But cholera in London has not been confined to sections supplied with this water; and it is needless to say that the disease has visited towns and districts supplied with the purest water. The main question is—Are the alvine discharges poisonous when brought in contact with the alimentary mucous surfaces? Professor Thiersch could not poison mice with the fresh or recently voided matters.

Dr. Schmidt, of Munich, has recorded the fact that a drunken man swallowed half a beer-glass of the vomit of a cholera patient, slept off his intoxication, and the next day was as well as ever, and did not afterwards have the cholera. He states that there were repeated instances of the same occurrence in Germany during the epidemic of 1831 and 1832. The physicians of Munich are reported by Dr. Schmidt to have swallowed the transudations of cholera patients with impunity; Dr. Marshall states that this is an error, that the physicians *tasted* the vomited matter, but did not taste the matter discharged by stool. The chances are very few that if the rice-water dejections are poisonous, the rice-water vomit will not partake of the same quality. There is another fact. Cholera almost always ascends large rivers that serve as drains for cities. When it appeared in the eastern extremity of Europe, it ascended the Volga; when it has visited New York, it has ascended the Hudson; when it has reached New Orleans it has ascended the Mississippi and its tributaries. Now, if the cholera dejections in the water that is used for drinking were the main cause of the disease, the opposite of this should be noticed; it should begin along the upper portions of the streams and occur successively at the different towns that use the water, on its way down. It is true that few of the inhabitants on the banks of the Hudson use the water of the river for drinking, but the cities of the great west are chiefly supplied with drinking water from its rivers. These considerations, and the important fact that in hospitals those whose duty brings them into immediate relations with the discharges are not more frequently attacked than other attendants on the sick, lead us to the conviction that there is no poison in these dejections, at least when they are first voided. Dr. Thiersch states definitely that they are not poisonous at first. Professor Pettenkofer makes the same statement.

But this theory received unexpected support from the studies of Mr. Brittan and Mr. Swayne, of England. They announced that they had found special organizations in the rice-water discharges. They have figured and described them as the cholera fungi. These bodies, it is stated, are found in the drinking-water of London, and, it is presumed, will be found almost everywhere in the drinking-water of regions where cholera is prevalent. At Edinburgh, however, while the cholera was prevailing there, the microscopists of that city made diligent search, and could find none in the water. They tried to discover them in the air of the hospitals and in the immediate neighborhood of cholera patients; they condensed the moisture of the air in tubes made cold by a freezing mixture, but found nothing. They examined the dejections. Dr. Robinson and Dr. J. H. Bennett found the "annular bodies" in rice-water stools frequently, but more frequently they could not discover them; being sometimes present, and oftener absent, they were regarded as accidental, and were not, therefore, considered the cause of cholera. The same observations were made elsewhere with similar results. Dr. Parker, the microscopical pathologist of the London Hospital, states, what is very well known in regard to the inferior animals, and possibly may be true of man, that fungi of various sorts are often found in the intestinal canal, and in the dejections, but that they appear to be entirely innocent, producing no disease. In the midst of these investigations, the College of Physicians in London appointed a committee to revise the whole subject. Dr. Gull and Dr. Baly were appointed this committee. They called in the aid of skilful microscopists, and undertook their work. They were able to trace the rings or "annular bodies" to the spiral and annular tissue in cabbage, onions, and potatoes, and in the style of wheat, and in cane-sugar. (Marshall.) The "globular or oval cells," "the fully developed cholera cells," were found to exist in flour and bread, being the spores of different kinds of uredo, rust, smut or bunt of grain. (Marshall and Bush.) With regard to "the discs, with rounded edges," which were described by Brittan and Swayne as a part of the cholera fungus, this committee assert that they were not fungi of any kind, but that they were mostly soluble in ether; and it was the opinion of Mr. Bush and Mr. Marshall, that they were bran cells, and Dr. Robinson, in Edinburgh,

believes that its abundance in cold weather prevents or limits the epidemic spread of cholera in winter, and says: "During the prevalence of cholera in this country from 1849 to 1854 inclusive, I was engaged in the telegraph business, and during that whole time never knew an instance of a telegraph operator dying of, or even being attacked by cholera." This exemption he ascribes to the ozone generated by the electrical currents.

found their presence in cholera exceptional. The "large broken cells" that were regarded by Dr. Budd as cholera fungi undergoing decay, the committee referred to the different conditions of starch in the alimentary canal, of which there is always a considerable quantity. Again, with reference to the rings, it had been observed that some of them had cross-markings; these were traced to the chalk in certain medicinal preparations, like chalk mixture given in diarrhœa, and the aromatic confection. The committee repeated the experiments made at Edinburgh on the air of infected places and cholera wards; they examined the water used for house purposes in infected places, extensively; and they mildly sum up the whole by remarking that the "results were negative." So that trusting in the committee's report, this fungus theory of Messrs. Swayne and Brittan comes to naught, and I think the same must be said of Snow's theory; at least so much as claimed that the poison of cholera was a specific cell which was capable of reproduction. Yet it is but just that his opinions be admitted to a full hearing. He held that the cholera cells could be transported from one place to another in a dried state, in soiled clothes or otherwise; could be diffused in the air, carried a short distance by the wind, when shaken from such clothes, and thus make a lodgment in the nostrils or mouth, thence to find their way into the stomach and intestines. The cell element of this idea is as unimportant as it is untenable; if anything in the dried excretions can be so diffused, and can so produce cholera, the sooner it is demonstrated the better for mankind; at present it is a conjecture unsupported by adequate evidence. The opinion that cholera can be produced by filthy water is better sustained. It is asserted, for example, that "within two hundred and fifty feet of the spot where Cambridge street joins Broad street, in London, there were upwards of five hundred fatal attacks of cholera in ten days. Dr. Snow at once determined that a pump [well] in Broad street was the source of the calamity. He found that a case of cholera had originally been brought to an inn close by the pump; he came to the conclusion that the sewer from the inn had a connexion with the well, and that thus the water of the well was directly poisoned." Dr. Snow induced the authorities to remove the pump-handle, and the pestilence ceased to spread. It was afterwards ascertained that the water was contaminated by the sewage of the inn and of some of the adjoining houses. It is further said that "an old lady who had once resided in Broad street had retired to Hampstead. For several years, however, she had been in the habit of sending to the Broad street pump for a keg of water for drinking. She had never suffered from it before; she drank of this water after it had been impregnated with the cholera excreta, contracted cholera, and died. Her niece drank of the same and also took cholera, but recovered. These were the only cases that occurred in that district."

These statements are made on the authority of Dr. B. W. Richardson, who is so fully converted to Dr. Snow's doctrine, that he "ventures to state that if all his (Dr. Snow's) precautions were carried out, cholera would soon be an extinct disease." Such faith is almost contagious, whatever may be the fact with reference to cholera. Other facts of similar import are cited in support of Dr. Snow's theory. I do not doubt the correctness of these reports; but do they prove that cholera is produced by cholera excreta? The water of wells contaminated by privies and leaky sewers is not now for the first time found to be unhealthy. The National Hotel calamity is too well remembered to need much commentary. There it was believed that the emanations from stagnant sewers produced a fatal diarrhœa, at first acute, then chronic, which brought mourning into many of the best families of the land. Had cholera been prevailing in Washington that season, does anybody who has studied its laws doubt that such a diarrhœa would have been quickly converted into that disease? Before it can be admitted, on this showing, that the cholera evacuations are a specific poison, it must be made clear that if, in August, 1854, while cholera was epidemic in London, the Broad street well had been contaminated by ordinary privy sewerage, without choleraic evacuations, similar effects would not have followed the drinking of the water. The same may be said of the argument derived from the greater mortality, during an epidemic, in houses supplied with the filthy Thames water, compared with houses supplied with pure water. This difference is reported to be as great as seventy-one to five in ten thousand. Let us know what are the pernicious effects of water made foul with common fæcal matter in a cholera season before we admit, on such evidence, the specific poison of the cholera evacuations.

I stated to you that Prof. Thiersch had started the idea that cholera evacuations are dangerous, not as they are at first discharged, but in consequence of a fermentation that takes place in them; and that it is in this way that privies and other depositories of the discharges become dangerous to the neighborhood. The chief evidence upon which he bases his opinion is this. He fed mice on the freshly discharged stools, or with food impregnated with them, and it did the animals no harm; he fed mice on the fermented material; thirty-four partook of this food, thirty were disordered in from four to seven days, and twelve died; they had diarrhœa before death, and the appearances after death were, as he states, analogous to the appearances observed in persons who had died of cholera. He gave to mice the dejections after the supposed fermentation had ceased, and it did not harm them. Disinfectants, he says, are chiefly to be looked to to prevent this fermentation, such as chloride of lime, tar-water, and sulphuric acid. He supports his experiments and opinions, by stating that when cholera appeared in two prisons in Bavaria, great care was taken in one to disinfect the discharges, and but a single person suffered out of between five and six hundred prisoners; while in the other no pains were taken to prevent the fermentation of the discharges, and though the institution was much better situated in regard to salubrity, fifteen per centum of the three hundred and fifty died. This is the whole of the evidence in support of this opinion, so far as I am in possession of it. You may say the theory still lacks proof, as it doubtless does, but it is one of those statements that ought not to be rejected without further study; at least prudence urges that we take the precautions suggested by it, even though we do not fully believe it.*

* A friend, familiar with German medical literature, has translated for me the thirty-six propositions which embody, in his own language, the doctrines of Professor Thiersch's Treatise. I select from them the following, that his views of the cause of cholera may be more perfectly understood. The term *metabolic* is from μεταβολη, which signifies change or transformation, and applies, in these extracts, to poisonous changes in the albuminous substances of the fluids, dependent on putrefaction or decomposition, whether that process evolves an offensive odor or not:

Proposition 19. Albuminous bodies are incapable of diffusion through the air in the form of gases.

20. It is, therefore, impossible that metabolic poisons and ferments should exist in the atmosphere as gases.

21. They exist in a state of fine mechanical division.

24. All contagious principles that are susceptible of dissemination through the atmosphere in the form of dust, without losing their poisonous properties, are called volatile.

25. Cholera depends on a metabolic poison.

26. The materials in which the decomposition or metabolic poison of cholera is produced are principally derived from the mucous membrane of the intestines.

Nothing less than this can be said of the much more firmly supported theory of Professor Pettenkofer, which denies the poisonous nature of the evacuations under any circumstances when they are considered alone, but declares the poison to be the joint action of these evacuations and the soil. We cannot sustain or confute such an opinion by any amount of argument. Its truth can only be ascertained by the accumulation of individual facts, which favor or oppose it. The field already explored is large, and the facts, it is said, all tend to its support. It has been made more than respectable by the research it has stimulated. It has taken such hold of the professional mind that when the opportunity occurs, whether it be the coming summer, or many seasons hence, it will be subject to a scrutiny which will probably decide its claims to confidence. This theory, like those of Thiersch and Snow, recognises a protection in disinfectants applied to the discharges; but to be of any avail, they must be used from the very first, it is said; for if the soil is once impregnated it generates the poison without limit. But there are some unquestioned facts which this theory will hardly explain. In October, 1837, between the 8th and 28th, twenty persons were attacked with cholera in the Dreadnaught hospital, afloat off Greenwich, England, while the disease was not elsewhere prevailing in Great Britain, and twelve died. It did not extend to the shore, and did not appear on any other ship. Between the 7th of January and the 2d of February, 1838, fifty-five of the inmates of the House of Industry at Coventry died of cholera. The disease was not epidemic in England, and did not appear outside the walls of that institution (Gull and Baly). Cholera has broken out on shipboard, twenty-seven days from a healthy port, among persons who have travelled several hundred miles from an infected district, before reaching that port. The combined action of cholera evacuations and the soil is in such cases scarcely operative. [Dr. Burrall, of this city, in a valuable treatise on "Asiatic Cholera," published since these lectures were delivered, quotes Dr. Drasche as authority for the statement, that in a number of instances cholera has prevailed epidemically without regard to moisture in the soil, and even on the bare rock.] There are other facts observed regarding the diffusion of the disease, to be noticed as we advance, which are not readily explained by this theory.

Reversion of Internal Organs.—A non-commissioned officer recently died at Tournay of typhus, and at the post-mortem examination it was found that all the internal organs were reversed, the heart being on the right side, the liver on the left, etc.

Engraving on Glass.—M. Henry St. Claire Deville has recently exhibited to the Academy of Science of Paris some very fine engravings on glass, executed by means of a solution of the fluoride of calcium in hydrochloric acid.

28. The poison of cholera is capable of being dissolved in the blood.
29. It is in the intestinal evacuations that we find this substance in its stage of decomposition.
30. Generally the intestinal products are discharged before the metabolic stage has been reached; that is to say, a person sick with cholera produces no ripe contagion.
31. The maturity of the contagion may be produced outside the organism, through the progressive decomposition of the evacuated fluids.
32. A combination of external circumstances is necessary for the maturity as well as the dissemination of the contagion.
34. The ripe [principle of] contagion may be desiccated without losing its poisonous properties.
35. It may be disseminated through the atmosphere in the form of dust.
36. It may be carried from privies by the aid of the moisture of the ground to adjacent wells.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Case of Meningeal Apoplexy.

Reported by S. Amabile, M.D., Senior Assistant Physician.

John Cream, a native of Ireland, twenty-six years of age, by occupation a printer, was admitted in the service of Dr. Flint, February 3, 1866. The previous history is imperfect, as he was in a semi-comatose condition; but one of his friends stated that he was a very intemperate man, and had been lately on a debauch. On admission he presented the following symptoms: countenance pale; respiration stertorous; surface cool, especially over the extremities; eyes half closed; pupils normal; tongue thick and tremulous, but not coated; pulse slow and feeble.

A physical examination of the thoracic organs revealed nothing abnormal; the patient passed urine freely, which was found to be free from casts and albumen. It was difficult to arouse him, but when aroused, he answered questions coherently; there was no paralysis of any of his limbs. He remained in that condition until February 4, at 11 P.M., when he began to have some convulsive movements of all his limbs; these increased more and more until 5 A.M. of the next day, when he had a decided convulsion, consisting of a succession of clonic spasms. The convulsions were repeated three times, and he died in a paroxysm three hours later.

Autopsy Three Hours after Death.—On removing the calvarium, and opening the cavity of the arachnoid, an effusion of blood was found, occupying the anterior superior part of the left hemisphere, and somewhat depressing the portion of the brain beneath it. The blood was partly coagulated and partly liquid, and was evidently from a recent hæmorrhage.

On examining the dura mater, spicula of bone, some of them shapeless and others in the form of needles, were found in that membrane; others with very sharp points, and still in that membrane, were found penetrating the arachnoid.

Others and myself carefully examined the skull-cap, and no signs of injury were found in that bone or in its coverings.

Other viscera were healthy, with the exception of the kidneys, which were much congested, but otherwise normal.

Remarks by Dr. Flint.—The hæmorrhage in this case was doubtless due to the wounding of vessels by the needle-shaped ossific or calcareous formations. The diagnosis of peripheral apoplexy could hardly have been made, even with the knowledge of the previous history. Uræmia being excluded by the absence of albumen and casts in the urine, the symptoms seemed to point to the existence of subacute or chronic meningitis. The convulsions were probably due to the irritation caused by the ossific or calcareous formations.

PENNSYLVANIA HOSPITAL.

Local Loss of Muscular Power—So-called Rheumatic Paralysis.

Service of Dr. Da Costa.

This case is a very interesting one, exemplifying a peculiar condition which would ordinarily be classed under the head of rheumatism.

— McC—y, aged thirty-eight, is by occupation a fireman upon a steamboat. His duties as a fireman, coaling up, raking fires, &c., necessarily exposed the front parts of his thighs to a great heat. Becoming very warm in

this way, he would run on deck to cool himself off; or he might be called upon occasionally to assist the deck hands, which circumstance would be most likely to occur during inclement weather. The exposure to heat, with frequently alternating exposure to cold and damp, eventually resulted in a chronic stiffness in the anterior muscular portions of the thighs, which, when first noticed three years previously, could in great measure be overcome by approach to heat, the condition returning again as the warmth left the parts. At times it would be subdued almost entirely, but would be renewed again after any exposure to cold or damp air.

The case had been under treatment, at various times, for chronic rheumatism. A closer examination, after careful inquiry as to the history of the case, showed the so-called rheumatic condition to be confined to certain groups of muscles. *The man cannot cross his legs* one upon the other, and hence there is marked impairment of the power of the sartorius muscle. *He cannot bring his leg forward*, showing inability to use the quadriceps-extensor group. Every other motion of the limbs except such as call into play the muscles of the anterior portion of the thigh, can be performed readily; and the rest of the muscular system is sound, as is the patient's general health.

The patient complains that the parts feel stiff and somewhat sore—stinging; and all attempts at forcible motion produce pain. There is no pain along the course of the sciatic nerve, and no pain in the region of the articulations. The general physical condition of the patient is good; the appetite good; the urinary secretion normal in its constituents; the bowels regular in their action, and there are no general or physical signs of internal disease of any kind.

Faradization, by means of the electric current, was applied to the muscles affected to discover whether their power of motion was impaired. Of course, to reach the muscles, the conductors must be moistened, though where it is intended merely to affect the skin, dry conductors are employed. The application of the current on the right side shows no impairment of the electro-muscular sensibility, and no impairment of the electro-muscular contractibility. Passing the current separately, through each muscle of the quadriceps-extensor group of the left, and those of the right side, their electro-muscular contractility is found unimpaired also.

There is consequently no real paralysis.

The condition of the patient consists, therefore, in a local affection of the muscles on the anterior surface of the thighs, produced by alternating exposure to heat and damp, and resulting in stiffness, accompanied by slight painful sensations and want of power; but is not dependent on any absolute loss of power from cerebro-spinal or other organic cause.

The case is one of localized muscular disorder, and belongs to a group of cases included under the head of rheumatic paralysis.

The treatment will consist in the employment of sulphur baths, with the internal administration of sulphur.

Iodide of potassium and iodide of iron had been previously taken for some time; the former with some benefit; the latter with none.

PHILADELPHIA, March 7, 1866.

THE JEWS' HOSPITAL.—According to the annual report of the directors of the Jews' Hospital in New York, the number of persons admitted to the institution in 1865 was 420. Of these 327 were discharged cured, 46 died, and 33 remained on the 31st of December in the institution. Nearly all the others were improved. Outside the hospital 437 patients were treated. The expenses of the hospital for the year were $11,251.18.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, APRIL 18, 1866.

DR. JAMES ANDERSON, President, in the Chair.

THE CONTAGIOUSNESS OF CHOLERA IN RELATION TO QUARANTINE AND SANITARY REGULATIONS.

DR. WILLIAM C. ROBERTS read a well digested paper upon the Communicability and Contagiousness of Cholera. His views were substantially as follows: Cholera cannot be anything but a specific poison, which is proof against any attempt at strangulation upon the threshold of its appearance.

Safety and exemption from the ravages of this one great epidemic must be procured, if at all, by preventing its introduction into our midst.

Neither fixed nor certain in its course, and travelling at the rate of from 30 to 450 miles per diem, it has gone the circuit of this continent in several directions at the same time. For his part, he thought that the conclusion arrived at by Dr. Baly, in his report on "The Cause and Diffusion of Epidemic Cholera," to the effect that the question of contagion is still left open, is in conflict with admitted and recorded facts. He held, too, that the epithets "rare" and "occasional," when used in connexion with the word contagion, were simply absurd, since *a fact* of necessity cannot be otherwise than immutable. A multitude of facts may corroborate, but cannot *prove* any position. To effect this one well authenticated fact equalled a thousand. He would not, with Mons. Moneau de Gormes, in his report to the French Council of Health, deny the atmospheric-current doctrine, and claim that the pestilence was communicated to the world *solely* by direct or indirect contagion. This was an extreme view. He averred that it was a disease communicable from the sick to the well, atmospherically and by contagion. By a reproduction of the disease in the individual, the atmosphere was contaminated, and thus was the scourge multiplied until its intensity was spent from sheer exhaustion. For a model case of transmission by *fomites alone*, he would quote the following, on the authority of Dr. Simpson: During June, 1833, the smack Eagle, on board of which two cases of cholera had occurred during the passage, arrived at Montrose from London. A healthy sailor carried his unsoiled bedding to his home, which was altogether free of the malady. Two children, who had been seen tumbling two days before on the mattress laid out to air, were seized with rapidly fatal cholera, communicated it to their mother, and became the innocent cause of twenty-seven deaths out of a population of 700, through whom the infection was probably spread by personal intercourse.

Another case, where the chain of testimony was not quite as perfect, since inference in the relation of the particulars took the place of omitted statements, he might also cite. A woman picked up a fine feather bed, found floating in the water, and died of the infection in a few hours; and her sister, who nursed her, was also siezed, probably in consequence of personal contact. Another instance was that of a woman at Tuam, county Galway, Ireland, cited by Dr. Graves, who died after buying the clothes of another who perished of the disease in hospital. A sister who washed her died, as well as a third person who attended the latter. Stores from hospitals where cholera had been treated, and clothing contained in a trunk belonging to a person who had died of it during a voyage, had been known to introduce the scourge. Rags from places where it was pre-

vailing; letters even, and houses in which it was rife, have likewise communicated it. In fact, the laws which regulate its spread are identical with those governing other infectious diseases. Cholera has been introduced by infected ships. The brig Amelia was a case in point. She sailed from New York, when cholera prevailed, for New Orleans. Twenty-four died on the passage. She was stranded on Folly Island, S. C., and communicated the disease to one hundred and fifty persons on the island by means of her sick, their fomites, or both.

He would accept Dr. Simpson's definition of contagion as one of the best with which he had met. It was as follows: "The transmission, by *specific* poisons, of *specific* diseases from the sick to the healthy, both by direct contact and by the *more indirect* medium of air, or of other fomites, impregnated with the morbific effluvia, *generated in the bodies of those affected.*"

Dr. Graves's views were quoted after those of Dr. Simpson—the former gentleman rather stoutly opposed the position that the existence of nuisances had any bearing on the dissemination of the poison. The influences of this kind which were thus supposed to present peculiar attractions for the production or spread of the contagion had ever been in existence. Dr. Graves repudiates quarantine restrictions, as being far from effectual in preventing the introduction of cholera, and says that "we must submit to free trade in diseases," in preference to the greater ills of starvation and death in the manufacturing districts, which must grow out of the universal closure of ports. "Still," says this writer, "though the knowledge of its being infectious may not serve to guard us against its incursions, it may nevertheless *materially aid us* in diminishing the extent of its ravages." To this he would himself subscribe, but with greater emphasis. Dr. Copland, another staunch contagionist, arrays many powerful facts in support of his views: while he answers, seriatim, the arguments of the non-contagionists with no little ability.

Dr. W. Read, the City Physician of Boston, who was unequivocally of the opinion that cholera was neither infectious nor contagious, has recanted in the presence of numerous facts to the contrary, and has had the magnanimity to publicly avow it.

What would have been the consequences to this continent had quarantine restrictions not been enforced in the case of the Atalanta arriving here last October? What, also, in the case of the England at Halifax, with her freight of disease?

He was pleased to encounter a corroboration of these views in Prof. Clark's series of lectures, as published by the RECORD.

While he could not subscribe to the doctrine that specific diseases were engendered *de novo* from filth, etc., he was convinced of the absolute necessity of limiting the predisposition to the contraction, maintenance, and diffusion of disease, which violated sanitary laws engender, and which constitute so great an element in its mortality.

We cannot, should not be mere indifferent lookers-on, for in the words of the great Samuel Johnson, "where nothing is attempted, nothing will certainly be done."

A NEW ARTICLE OF LEADEN PIPE.

Dr. JOHN C. DRAPER then presented several transverse and longitudinal sections of leaden pipe lined with block tin. The union in this instance between these two metals he had found upon the application of several tests to be absolutely perfect, and the Croton Board have also expressed their entire confidence in the invention, as far as all practical purposes were concerned. Owing to the lateness of the hour he refrained from describing the details by which this union was effected by the manufacturer, but he would assure the Academy that they were eminently beautiful as well as scientific.

This arrangement possessed the advantage of cheapness over the pipes made entirely of tin, adopted in the villas of the wealthy. Then, too, a greater amount of flexibility was gained, which, in adaptability to constructive purposes, was no mean item in the economy of material.

As germane to this subject, he would cite an instance, occurring in one of the public schools, which should satisfy any mind that the use of water, in contact with lead for a sufficient period of time, was beyond a doubt deleterious. In this case it was noticed by one of the teachers, that on Monday mornings attacks of colic followed close upon the use of the water which had remained in the pipes from the dismissal of the school on the preceding Friday, up to that time. No fewer than forty pupils were attacked after a rather unusually protracted holiday. The evil was entirely arrested, however, by keeping the faucets open and allowing a perpetual current through them, during the intervals of disuse. In truth, he had quite often in his laboratory detected the presence of lead in water which had remained in the pipes undrawn, for some time. He would venture the opinion that many of the anomalous nervous troubles to which our people were subject, were due to a solution of some of these salts, even in pipes that were old.

The Academy, owing to the coming convention of the American Medical Association, then adjourned, to meet in special session on Thursday evening, April 26.

NEW YORK INSTITUTION FOR THE BLIND.—The thirtieth report of the managers of the New York Institution for the Blind to the Legislature of the State has just been published, giving the operations of the Asylum for the year 1865. Financially, the debt of the Institution on the 1st of January, 1866, was $130,868.26, of which $106,500 was secured by mortgage. The present deficiency to be made up by the Legislature is $24,368.26. From the report of the Superintendent it appears that for the year ending on the 31st of December, 1865, the following were the pupils in the Asylum:—Number at the close of 1864, 125; admitted during the year 1865, 34—159; left by graduation, &c., 35; number in the Institution December 31, 1865, 124. Of these there are sixty males and sixty-four females. The health of the pupils has been good. The following are the officers of the Board of Managers:—Augustus Schell, President; Robert S. Hone, Vice-President; T. Bailey Myers, Recording Secretary; Charles K. Tuckerman, Corresponding Secretary; Smith Clift, Treasurer. Of the Institution proper the following gentlemen constitute the officers:—William B. Wait, Superintendent; Attending Physician, James W. G. Clements, M.D.; Consulting Physician, Edward L. Beadle, M.D.; Consulting Surgeons, Abraham Du Bois, M.D., John H. Hinton, M.D.

PRECAUTIONARY SANITARY MEASURES AT FORTRESS MONROE, VA.—The military and medical authorities at Fortress Monroe, Va., are devising active measures for the improvement of the sanitary condition of the freedmen and other inhabitants of the peninsula. A quarantine guard-ship has been stationed in Hampton Roads, and a steamer furnished for the use of the health officer, Assistant Surgeon W. P. Wolverton.

THE N. Y. MEDICAL JOURNAL ASSOCIATION will remove, on the first of May, to No. 30 East 18th street.

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, M.D., EDITOR.

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FOREIGN AGENCIES.

LONDON—STEVENS BROS. | LEIPSIC—B. HEERMANN.
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New York, May 1, 1866.

OUR KNOWLEDGE OF CHOLERA.

DURING the last few months the all-absorbing topic which has interested the profession in this country and abroad has been that of Cholera. Discussions upon the nature of the disease have been held without number, and the different medical periodicals have not been by any means backward in ventilating the subject. All this has seemed to be necessary in view of the strong probability that the pestilence may again make its appearance during the coming season. Although from present indications we may have no right to assume that the disease will positively visit us, we have grounds enough for serious apprehension in this respect to warrant us in continuing our study of the disease.

If our fears are to be realized, we have certainly but little time left us for completing those preparations which will enable us to cope intelligently and successfully with the enemy. We have learned very much of the character of the disease, but there is still very much more that we have to acquaint ourselves with before we can, as a body, be considered capable of meeting the emergency in case it may arise.

It becomes us, in view of the near approach of the warm season, not only to inquire of ourselves what we now know of Cholera, but what we have to learn concerning it.

Let us first see what we have so far learned.

Notwithstanding the many conflicting opinions in reference to the mode of propagation of the disease, and the circumstances attending its development, we are at present warranted in assuming that it is communicable. As to the means which are to be taken to prevent its spread, we are pretty well agreed. The conclusions which the Bavarian Commission have arrived at, as the result of the very thorough investigation which it has made of the epidemic in 1854, must commend themselves for pretty general adoption. As regards its mode of propagation, the views advanced by Prof. Max Pettenkofer, one of the members of the afore-mentioned Commission, we must admit to be liable to the least number of objections.

Concerning the true pathology of the disease there is necessarily much mystification; and although some advance has been made in the knowledge of the abstract post-mortem appearances, we have still to confess that we are as yet far from being well informed upon the subject.

The vast array of facts which we have had presented to us in regard to the portability of the disease, invests the subject of quarantine with great interest. Although we may not be able to explain away certain circumstances connected with the spread of the disease in those localities where rigid quarantine had been enforced, we have no reason to say that those measures were useless. In the face of the well authenticated statements in regard to the utility of quarantine, any medical man would indeed take upon himself a grave responsibility in advising against its enforcement. Not only would the abandonment of quarantine be an invitation to a spread of the disease, but the moral effect upon a community would obviously be exceedingly prejudicial. As far as our present knowledge, goes, we are indeed forced to take such precautions against its extension as we would be led to in a disease that is known to be actually contagious; and we have not only to give due credit to the influence of quarantine, but we must needs keep constantly before us the beneficial effects which grow out of a strict attention to sanitary regulation.

All these points seem to be pretty well established, but our opinions are very far from being equally settled on others. We may be convinced as to the best means of preventing the spread of the malady, of the necessity of quarantine, and other matters connected therewith; but, we repeat, we are as yet in ignorance of its true pathological anatomy, and know but little of any particular system of treatment that may be generally available and effectual. It is to the consideration of these most important subjects that our more particular attention should be invited.

As far as the thorough understanding of the pathology of the disease goes, we must, for the present at least, content ourselves with working somewhat in the dark. The theories that have been advanced in regard to it have been numerous enough to afford a variety of choice to almost every one who is without one. Any possible view can at present be taken of its pathology, and a theory can be found to match it. We may be approaching very near the truth, but are still evidently far enough from it to stimulate renewed investigation and more extended research.

As to the treatment, there has not been enough said of the relative merit of the immense number of remedies that have already been used. The experience which has been obtained in the treatment of Cholera has been very extensive, and there are many facts connected with it of much value which are still to be

brought to light. The time has come when the profession should become possessed of these in all their detail. For this purpose free discussions upon the therapeutics of Cholera should be held before every Society, and the older practitioners who have had experience in treating former epidemics should be invited and encouraged to present their views. The results of their experience, in order to subserve the best interests, should be given in plain terms, as simple facts unbiassed by any pet theory, and not wearing the livery of any particular hobby.

We have not yet called the special attention of our readers to the merits of all the new medical journals which have made their appearance since the commencement of the year, as we preferred before so doing to make their regular acquaintance on our table. Having now had time to look them over, we take the first opportunity of presenting their claims for public recognition and patronage.

We will commence with the *Richmond Medical Journal.* This periodical is a monthly, and is under the editorial management of Drs. E. S. Gaillard and W. S. McChesney, who are also its proprietors. Each number is an octavo of eighty pages, and is devoted to original articles; foreign and domestic correspondence; a retrospect of medicine and surgery during the late war; an eclectic department; hospital and society reports; reviews and medical news; and miscellaneous articles. The first number, issued in January, gave us some idea what we might expect from Richmond; and the excellence of the succeeding numbers has been no way calculated to disappoint its friends. The editorials are written with care, and are well calculated to give a reputation to the journal for solidity and influence second to none in the country. To this journal justly belongs the credit of being the first new one issued from the South since the war; and this fact of itself, in giving evidence of the enterprise of the editors, is a good guarantee of its future success. We are glad to learn that it has been met with sufficiently liberal pecuniary support to enable it to have a publication office of its own. It has our best wishes for a brilliant career.

The Cincinnati Medical Journal commenced with the year.

We have received four numbers of this periodical, and are happy to say that it comes up to that standard of excellence which, from the character of the editorial staff, might have been anticipated. The Journal is divided up into three parts, one editor taking exclusive charge of each. The department of Anatomy, Surgery, and Ophthalmology, is edited by Professor George C. Blackman; that of Obstetrics, Diseases of Women and Children, Materia Medica and Therapeutics, by Professor Theophilus Parvin; and that of Practical Medicine, Physiology, and Chemistry, by Professor Roberts Barthalow. Each department is well worked up, and the very judicious selection of material makes the journal, as a whole, very readable and interesting. The subscription price is $2 per annum. The subscribers, of which we hope there are a great number, have reason to congratulate themselves for getting so much at such small expense.

The Medical Reporter—a new semi-monthly journal of medicine and surgery—is published in St. Louis. The editors are Drs. J. S. B. Alleyne and O. F. Potter. The first number was issued the 1st of March. It has twenty-four nicely printed octavo pages, and contains original papers, editorials, medical intelligence, and extracts. It is well managed, and is a credit to the industry and intelligence of the editors. The subscription price is $3 per annum, in advance.

The Detroit Review of Medicine and Pharmacy is another candidate for favor, and judging from the appearance of its first number, issued April 1, its promise for success is exceedingly good. The following gentlemen compose the editorial staff: Geo. G. Andrews, M. D., Samuel P. Duffield, Ph. D., and Edward W. Jenks, M.D. It is a monthly octavo, of forty-eight pages, and contains original communications, reports of societies, selections, a review of the progress of the medical societies, together with a pharmaceutical department. It is well printed, the articles are good, and the selections varied and interesting. Dr. H. Kiefer has described a fatal case of Trichinous disease occurring in Detroit, and his article is embellished with a lithographic representation of the trichina. His promise to work up the literature of the subject in the succeeding number, will, when fulfilled, doubtless furnish an interesting article for its readers. The subscription is $3 per annum.

The Medical and Surgical Monthly, of Memphis, Tenn., made its first appearance March 1. Drs. Frank A. Ramsey, D. D. Saunders, E. Miles Willett, and Wm. H. White, are the editors. It contains 67 pages of reading matter, which is divided up into original articles, editorials, and an excellent synopsis from Braithwaite's Retrospect. The first article, on the Natural and Medicinal History of Sponge, is furnished by Dr. A. K. Gardner, of New York, and is well written and interesting. The same remark applies to the articles by Drs. Pope, Saunders, Willett, and White. The subscription is $5 per annum.

Texas represents itself with the Galveston Medical Journal, which is under the editorship of Dr. Greensville Dowell. This journal is also a monthly, and each number contains 48 pages, the subscription price being $5. In the salutatory the editor remarks that this is the first medical journal published in that State, and that he intends to do his best in making it acceptable to his readers by presenting them with strictly original articles, together with the usual variety of other matter. We have seen two numbers thus far, and recommend it as deserving of the liberal patronage of the physicians of the State. They should encourage this pioneer publication, not only by contributions to

its pages, but by that more substantial aid which publishers so well appreciate.

The Atlanta Medical and Surgical Journal, edited by Professors J. G. & W. F. Westmoreland, and the Savannah Journal of Medicine, edited by Professors Juriah Harris, J. B. Read, and Dr. J. G. Thomas, are not, strictly speaking, new periodicals. They both commence a new series, after an intermission of four years, the former giving us the first number of its seventh volume, with the 1st of March, and the latter the first number of volume five, with January. Both are creditably got up, and we wish them a renewal of that success which has heretofore been so well deserved by them.

These are all the new journa's which we have thus far received; if there are any more we should like to see them, and give them a welcome to our table.

Reviews.

Asiatic Cholera, by W. F. Burrall, M.D. 155 pp. 12mo. New York: Wm. Wood & Co., 61 Walker street, 1866.

A pestilence that has, during a half century, swept into the grave more than *forty millions* of the human family, justly demands of the hygienist and the physician unceasing study and the most philosophical methods of research. Dr. Burrall has manifestly entertained this view of a professional duty which he has undertaken. His task has been well accomplished.

Opening with a well stated review of the merely historical facts relating to epidemic cholera, the author passes at once to the chief ætiological questions that concern the medical inquirer, and handles with logical skill such facts and deductions as the best medical authorities have furnished. Starting with the bare theory of contagion, the evidence and the possibilities relating thereto are candidly stated as follows:—

"The evidence in favor of the contagious nature of cholera is mostly, if not altogether, of a circumstantial character. While the disease is not contagious in the same manner as small-pox and scarlatina, yet the well authenticated cases are so numerous, in which a direct connexion has been traced between the origin of a cholera epidemic, and the arrival of an individual from an infected to a previously healthy neighborhood, that there should be no doubt as to the spread of the disease by human intercourse. This point may be considered as so well established that a practical disregard of it involves the assumption of a grave responsibility.

"The evidence which is advanced against the contagiousness of cholera does not weaken the accumulated force of the facts in its favor, some of which do not admit of a reasonable doubt; but it only shows that the liability to contagion is diminished, or strengthened, by certain localizing causes.

"Preconceived opinions, although honestly taken, have been in many instances an obstacle to the belief in the communicability of cholera from individual to individual, and the same result has been produced in others from a failure to appreciate the indirect manner in which the disease is believed, on good evidence, to be communicated."

Meteorological phenomena are duly discussed, and the phenomenal records of epidemics are adduced. An instructive sketch of the present great epidemic, with well drawn comparisons of all the visitations of cholera upon our continent, bring the reader to important logical conclusions, of which the following are of chief moment to us:

"In proportion as further study reveals more of the essential nature of cholera, unexplained phenomena will become clearer, and apparent discrepancies reconciled. Something has been already accomplished in this direction, and the following important propositions, which are sustained by sufficient evidence to justify a belief in them, are the results of comparatively recent investigations:

"*First.* Cholera is a disease which is diffused by human intercourse.

"*Second.* The cholera dejections are the chief (if not exclusive) agents in disseminating the infectious material.

"*Third.* Certain circumstances, among which moisture in the soil has a prominent, but not exclusive, part, favor the spread of the disease."

Certainly it were fortunate for human welfare if the *second* of these conclusions were *positively* the *only* conclusion to which our ætiological inquiries naturally or necessarily bring us. But, are not the facts concerning the infectious power or agency of the "rice-water" discharges susceptible of two interpretations—widely different, yet entirely harmonious—as relates to the introduction and diffusion of epidemic cholera? 1st. May we not conclude, as our author seems to have concluded, that the cholera stools or ejected fluids of the sick are more directly concerned in spreading the malady than any other agency within immediate control *during an epidemic.* 2d. That in the absence of any well recognised general epidemic of cholera in the world, or at the very close of epidemics, this supposed propagating power or agency of the "rice-water" discharges from cholera patients fails to infect either persons or localities with that *certainty* that is experienced during great epidemics; also, that while even during such *non-epidemic periods*, while it would appear that cholera may be, and actually has been, often propagated by means of the "rice-water" evacuations, the extension of such infection, so as to induce a widespread malignant epidemic, has not been known to occur.

In this manner we interpret the following testimony which Dr. Burrall has quoted from Dr. Harris, concerning the fourteen visitations of cholera to the old quarantine grounds, Staten Island.

"Concerning these repeated outbreaks of cholera at quarantine, it should be stated, that while they proved how fatally infectious the cholera poison may become in the midst of crowded hospitals and public institutions, they utterly failed to prove that from the same exclusive cause—viz. the contagion of the cholera evacuations—a world-wide epidemic could be caused. These outbreaks did prove, however, that the stools and besmeared clothing of the sick with cholera can, under certain circumstances, propagate the disease; while, on the other hand, a series of events at quarantine and in the city demonstrated, that for the production of a widespread epidemic, other important causes than the presence of the 'rice-water' stools and vomitings must be present."*

It is a special merit of Dr. Burrall's timely volume, that it so states facts as to instruct the reader most impressively and acceptably in all that relates to preventive measures and prophylaxis. We have met with no writing on cholera in our language that has more happily achieved this chief end of medical research. For this reason, no less than for the scholarly excellences of this brochure, it is sure to command the attention and regard of the profession.

The phenomena of the disease, its semeiology, pathological events, and their rational interpretation, as presented in Chapter IV., will be regarded with profound interest by the profession. The author evidently is familiar with the best and latest writers who have en-

* See Dr. Harris's Report on *Epidemic Cholera*, published by *Council of Hygiene*, Nov., 1865.

riched the pathological literature of cholera in European countries; the chapters exhibit evidences of a candid and logical study of Parkes, Budd, Johnson, Bell, Drasche, Snow, Pettenkofer; and with remarkably good judgment and scholarly taste in quotations and in abstracts, he sets forth the results of the researches and observations of foreign authorities in a graceful and logical style.

The therapeutics of cholera are discussed in Chapter V. The task is well performed; and though the author labors to find some absolute or relative values of medicines, he nevertheless concedes the inevitable conclusion which experience has taught, that in epidemic cholera Death still asserts predominant claims, except when the picket guards of prophylaxis are thrown around the patient at the earliest onset of the enemy.

An Appendix of twenty-two pages embodies, in a condensed form, a great amount of valuable and recent information upon the more important questions relating to cholera. To this Appendix we hope the publishers will urge the author to add, in the successive editions—and the editions should be numerous, if the profession does justice to itself and the publishers—the practical lessons which the progress and events of the present epidemic will teach.

All that could be wished in clearness of type, good paper, neatness of style, etc., has been done by the publishers to make this an acceptable presentation to the medical literature of the season. It is a timely publication, for which our brethren will thank both author and publishers.

Progress of Medical Science.

Arsenic in Hæmorrhoids.—Last summer a friend suffering with "hay-asthma," called upon me for a prescription. He likewise was a martyr to hæmorrhoids, and had been for years; in vain he had submitted to the ligature, to nitric acid, to incision and to excision—each of these relieved for a time, and then the trouble returned. Fowler's solution was prescribed for him, with reference solely to the asthma. At the expiration of a week, there was no improvement in the difficulty for which the arsenic was administered, but there was a remarkable change for the better in the hæmorrhoids, and a further continuance of the remedy relieved him entirely. Since that time, occasional relapses have occurred, but they yielded quite well in a few days to eight drops of Fowler's solution three times a day. It is now upwards of thirty years since Sir Charles Locock pointed out the value of arsenic in the treatment of *atonic menorrhagia;* and quite recently Dr. Handfield Jones (*Functional Nervous Disorders*) explains the result by the influence arsenic exerts in producing contraction of the blood-vessels. Doubtless this is the way too in which it acts upon the enlarged hæmorrhoidal vessels, although its application in the treatment of such diseased state is to me entirely novel, and the discovery purely accidental. That it does good I do not doubt for a moment; but that it should be resorted to, neglecting the condition of the intestinal canal with reference to proper secretion and evacuation, would only tend to discredit by failure what I believe will be proved to be a valuable application of an important remedy.—*Dr. T. Parvin, Cincinnati Journal of Medicine.*

Local Anæsthesia.—Dr. B. W. Richardson's method of producing local anæsthesia is thus referred to by the *Lancet* (March 17): "In a remarkably large proportion of the deaths following the inhalation of chloroform, slight and superficial operations only were about to be performed; a ready means of producing local insensibility to pain is therefore a highly important addition to our surgical resources. This there can, we believe, be no doubt Dr. Richardson has afforded us. He uses a modification of Bergson's handball spray producer, and employs a finely-divided spray of perfectly pure rectified ether, of 0·723 specific gravity. The skin blanches in from thirty seconds to two minutes; and by following the knife with the spray, more than merely superficial incisions may be rendered painless. Thus it will be seen that in a case where it was necessary to extirpate the eyeball, and the patient was suffering from extensive disease of the heart, so that the experienced chloroformist declined to administer that anæsthetic, the ether spray was used, with the effect of materially diminishing the terror and pain of the operation. It is a great recommendation of this process that the instrument is handy and the material accessible, although care must be taken to obtain it very pure and of the stated specific gravity. Enough has been done in the numerous and successful operations now performed under this influence—over 100 in number—to show that this method is capable of extended application; and although it may have its disadvantages—such as sometimes itself causing much local irritation and subsequent excoriation, though it fail in many cases (of extraction of molar teeth especially) and be inconvenient in others,—yet there remains a large balance of cases in which its application will evidently be of the most valuable and beneficent utility. Not only will it probably supersede ice and salt as a local anæsthetic, but it will make chloroform unnecessary in many cases, and will render painless a number of minor operations now a source of great alarm and suffering."

The Vessels on the Yellow Spot of the Retina.—On a minute injection of the retina, we find a much thicker capillary network than the ophthalmoscopic appearances would lead us to suppose. Even in the *Macula lutea*, which is generally supposed to be without vessels, we find both in the newly-born and adult subject a fine capillary network. The vessels have on this portion of the retina a course tending towards the central foramen. The most prominent are those running from above downwards, and from below upwards; those running from within outwards are smaller; and the smallest are those passing from without towards the middle of the fovea. They anastomose on the *Macula lutea* to a network, whose meshes are quite wide. * * * The foveal vessels are principally twigs from the branches of the *arteria centralis retinæ*, which run about the point of direct vision in an arched manner. When the injection is imperfect, the coloring material generally remains on the border of the macula, and the vessels seem to suddenly end there. This sudden termination shows that coloring matter has not reached the furthest branches. * * * The injections which led to the above results were made in children from the common carotid; in adults, from the ophthalmic artery. *Dr. J. Niemetschek, Viertel-Jahrschrift Prag., Jany.* 1866.

Citric Acid as an Application in Cancer.—Charles J. Denny, M.R.C.S. (*Lancet*), has recently reported a case of scirrhus of the tongue, in which the local application of citric acid was seemingly attended with benefit. The patient was a sailor, aged 70, who came to the surgeon complaining of pain along the whole side of

the face, and difficulty in mastication. On examination, cancer of the tongue was discovered to be the cause of these symptoms. As the disease had extended too much to think of removing it, there was nothing left to be done but to palliate. Large doses of anodynes were administered, with, however, but little benefit. The patient having seen an account in a paper of the good effects of citric acid in cancer, begged that a trial should be made of its efficacy in his case. A mouth-wash, containing a drachm of citric acid to eight ounces of water, was ordered. Mr. Denny thus speaks of the results of its use:—"He came to me a few days after, and said he felt greatly relieved from its use. When at all suffering he applied it, and the pain disappeared like magic. I may say here that it must be used two days before much effect can be expected. He can now sleep well and go about his business comfortably, which is that of a letter-carrier for a large works. He takes no opiates, and firmly believes, as I do, that he has found out the means of soothing the way to death."

Hypodermic Injection of Quinine.—Dr. Jas. M'Craith, senior surgeon to the Smyrna and Ardin Railroad, has sent a communication to the Royal Medical Chirurgical Society relating to the cure of malarious diseases amongst the men employed on those works, by the hypodermic injection of quinine. The article is thus referred to by the *British Medical Journal:* "The writer first explained the relative equivalent values of different terms used by French and English authors in writing of continued, malarious, and typhoid fevers; and then described his experience of the fearfully sudden effects of the malaria poison on men employed on the railroad, and the universal applicability of quinine in this fever, and indeed in all diseases which weakened the general health and strength, and which on that account were sure to take on the character of the prevailing fever epidemic, whatever it might be. He then described the various forms of malaria fever, which he arranged under three heads, as Simple Ague, Masked Fevers, and Pernicious Fevers. The hypodermic method of injection was found most valuable in the third class of cases; and an example was detailed in which a patient, who had been in a profound coma for a long time, and was incapable of swallowing anything, was rapidly relieved by the injection of three grains and a half of quinine in each arm. A form of the pernicious fever called by the French 'algide,' and remarkable for the long continuance of the 'cold stage,' out of which the patient rarely recovers, was mentioned as one in which, from the intestinal canal being very much obstructed, the injection would most probably prove successful. Several cases of the choleraic form of malaria fever and of ordinary fever were also related, which were found to yield to the subcutaneous exhibition of the specific, after the ordinary method had proved quite ineffectual. The writer described the symptoms of two forms of yellow fever, the epidemic contagious and the endemic malarious non-contagious, with some severe cases of the latter, in which neither the exhibition by the mouth nor the hypodermic injection of quinine succeeded. The epidermic acid treatment, accidentally suggested to the author a few years since by Mr. Wordsworth, was found to be very successful with the white race only; but the climate of Smyrna does not suit the black, and he must eventually die out of it. No injurious results had been found to follow the hypodermic injection, but small abscesses were not unfrequent. The author did not think the hypodermic method would supersede the usual treatment by the mouth, but that it would prove extremely useful where a great scarcity of the remedy existed, or where the symptoms would not allow its administration by the usual method."

Chronic Bronchitis in the Old.—Dr. Headlam (*Lancet*) finds the tinct. of stramonium given in doses of ten minims, combined with other expectorants, very useful in those cases of chronic bronchitis in the old, where there is great dyspnœa, accompanied by a dry state of the bronchial tubes.

Tumor resembling the Female Mamma.—Dr. Peter Pineo, late Medical Inspector U. S. A., being present at a recent meeting of the Boston Society for Medical Improvement, related the following case: In April, 1865, a negro, forty years of age, presented himself for examination as a recruit in Charleston, S. C. On being stripped, his physical condition was found to be perfect, with the exception of a round, flattish protuberance on the anterior aspect of the right thigh, at about the juncture of the upper and middle thirds. This protuberance was about four and a half inches in diameter, had a glandular feeling, and an elevation in the middle like a nipple, with a depression at its point, and resembled strongly a female mamma. The negro said it had always been there, and from his account it seemed to have been congenital. The resemblance to a female mamma was so great that the examining surgeon called the attention of Dr. Pineo to it. Dr. P. showed a drawing of the tumor.—*Boston Medical and Surgical Journal.*

Rupture of Uterus; Gastrotomy Successfully Performed.—Dr. E. Miles Willett (*Medical and Surgical Journal*, Memphis, Tenn., March, 1866) relates a case of rupture of the uterus for which gastrotomy was successfully performed. The patient, after having previously given birth to two still-born children, was seized with her third labor, March 20, 1865. It showed nothing remarkable in its progress until twelve hours after its commencement, when Dr. Frayser, the attending physician, called in Dr. Willett to assist him. They then found the patient somewhat restless and disturbed in mind. She had vomited freely, and was throwing up bile when we entered the room, but had not had a labor pain for half an hour. The blood in the vagina, the recession of the head, the absence of labor pains, and the irregular surface of the abdomen, through the walls of which could be distinctly felt an elbow, made the diagnosis of rupture of the uterus absolutely certain, although the attendants did not think that she had suffered much, and could not remember any particular agonizing pain. After consultation, the performance of gastrotomy was decided on, but the operation could not be commenced, owing to a difficulty in obtaining the consent of the friends of the patient, until two hours and a half after the rupture occurred. Assisted by Drs. Frayser and Grant, he made an incision in the median line, through the skin and cellular tissue, from below the umbilicus to within an inch of the pubes; but as this would not give sufficient room, it was extended upwards and to the left of the umbilicus. The peritoneum was then opened, and with a probe-pointed bistoury, guided by the finger as a director, the incision was completed. It was found that the child and placenta had been expelled by the uterus into the cavity of the abdomen, the child's head rested on the brim of the pelvis, and the uterus had contracted sufficiently to prevent exhausting hæmorrhage. After removing them, the blood and amniotic fluid was sponged out as well as could be done, the edges of the wound were drawn together with interrupted sutures and adhesive plaster,

the body-bandage adjusted, and cold applications ordered. During all this time the patient was fully under the influence of chloroform. The pulse was ninety-six, and sufficiently full before the operation; one hour afterwards it increased to one hundred and ten. During the night she took six drachms of elixir of opium. No untoward symptoms retarded the recovery.

Bromate of Quinine—a New Remedy.—M. Courtener, a Russian physician, recommends the bromate of quinine as a new and useful remedy applicable to intermittents and some other diseases, such as dysentery, typhoid fever, and diphtheria. It has a sedative action superior to the sulphate of quinine, and therefore may be given in smaller doses. M. Courtener considers 50 centigrammes a sufficient dose. It is quite soluble, one part being dissolved in four parts of water—a property which adapts it for hypodermic injections. The use of it is rarely followed by tinnitus aurium.

This medicine is prepared by treating quinine with hydrobromic acid and then evaporating to crystallization or dryness.

Mr. Courtener recommends it as a prophylactic of cholera and in its period of incubation.—*Bulletin Gén. Therapeutique, Feb.* 16, 1866.

Menstruation and Abortion at Seventy-two Years of age.—Dr. Priou mentions this case in the *Bulletin de la Société de Médécine d' Angers*:—The patient, seventy-two years of age, began menstruating at sixteen, married at twenty-eight, and had six children, the last of whom she bore when she was forty-eight. She suckled this child, and saw no catamenia afterwards. On March, 1863 (viz. twenty-four years after the last catamenia, she menstruated for three days, and the same happened on the 2d of April and the 4th of May. She then consulted her doctor, being afraid of cancer. On examination she was found quite sound. In June and July the catamenia appeared again. In August they lasted but one day; and, at the close of this month, as well as in September, the patient had some sickness of stomach, a circumstance to which she paid but little attention. On October 26th she sent, in great haste, for the doctor; and it was found that she had had labor pains. Having experienced a kind of sensation as for an evacuation per rectum, she had felt something rather bulky pass per vulvam, with much liquid. The latter was serum mixed with blood, wherein a two-months' fœtus was floating. The placenta was discharged two days afterwards, and the patient did very well. She died, however, three months afterwards of extensive bronchitis.—*Lancet.*

The supply of Iodine and Bromine.—Iodine occurs in commerce much more abundantly than bromine, and hence does not command so high a price as the latter element. A ton of raw sea-weed yields about a quarter of a pound of iodine, but not more than half an ounce of bromine. The water of the Dead Sea has long been known to be exceedingly rich in bromine, without containing, so far as could be ascertained by the old methods of analysis, the least trace of iodine; and Mitscherlisch has not only failed to detect, by the delicate process of spectrum analysis, the minutest portion of iodine in the water of this sea, but he has also failed to detect iodine in European sea water, containing a very appreciable quantity of bromine. For example, he found that the residue from the evaporation of six and a half pounds of sea-water taken off Heligoland, treated by his process, showed the bromide of copper spectrum for seven minutes, but did not give the least sign of the iodine spectrum.

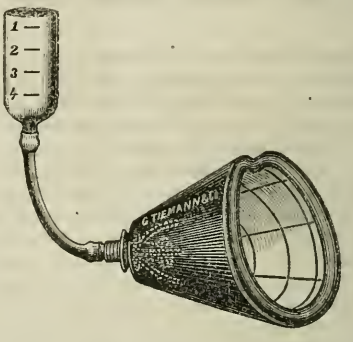
Improvements in Instruments.

A NEW INHALER FOR ETHER.

By FREDERICK D. LENTE, M.D.

Of Cold Spring, N. Y.

The object of the invention of the "inhaler," of which a delineation is here given, is mainly to encourage a more general use of "*ether*" as being the safer anæsthetic, it having fallen into very general disuse in this country since the introduction of *chloroform*, and into almost total abandonment in England. The reason commonly alleged for this is the "*difficulty and uncertainty*" of inducing anæsthesia, and the large amount both of *time and material* required. I confidently claim to have completely obviated all these objections by the simple contrivance now presented to the profession.



It consists, first, of a light wire, helmet-shaped framework, so formed at the base, which is bound with a soft cushion, as to fit over the nose and chin, but not to cover the eyes. At the apex of this cone, is a male screw; over this framework is a cone of double flannel, —a hole at its apex allowing it to slip over the screw. Over this is screwed an arrangement consisting of a short tube about half an inch in diameter, and branching into three smaller tubes, so arranged, when adjusted, as to embrace and open upon the flannel cone at equal distances from each other, at about one-third of the height of the cone. Over this tube is slipped a cone of tin or of some impervious material not easily acted on by "ether." The cone is kept *in situ* by a nut screwing over the tube; over the end of the latter is drawn a rubber tube about half an inch in diameter, the other end of which is to be slipped over the neck of a suitable bottle containing about four ounces of ether, as soon as the inhaler is required for use; or over the end of a metal tube fitted to a cork which may be attached to any bottle, but the other mode of connexion is the safer.

Having explained to the patient the manner of breathing, viz. to inhale as *rapidly and fully* as possible, as long as he retains consciousness, and *not to be alarmed* by any unpleasant sensations which may be excited at first, the cone is fitted as accurately as possible to the face; the wire and tin being bent a trifle, if necessary; and, as a *sine qua non* of the successful use of the instrument, I insist that, having been once placed on the face, it is to be kept *closely* applied, and never once removed, ever so little, until anæsthesia is complete. * Of course there may be now and then, but

* By placing the inhaler over his own face as tightly as possible, without ether, and breathing through it, the operator may convince himself that there is no danger of suffocating the patient by cutting off too much air, as it is impossible to prevent the leakage of a sufficient amount for tolerably free respiration.

rarely, an exception to this, as when a patient persistently holds his breath for some seconds; but the moment he commences to respire, it is to be replaced. Upon inverting the bottle and holding it above the inhaler, the ether runs very rapidly through the tubes, and almost immediately diffuses itself over the whole flannel cone, no matter whether the instrument is held *vertically or horizontally*. For commencing, about two drachms is a sufficient charge; as soon as the patient begins to respire fully, or in twenty or thirty seconds, about three drachms more are to be applied, and so on until the etherization is complete; if a larger amount be used, it is of no consequence whatever, except as regards the waste of ether; if more than enough is used, it will run down and be felt by the fingers at the bottom of the instrument. When the inhaler is removed from the face, from time to time, as when stertorous breathing comes on, it should be placed base downwards on the bed or operating table, which will save ether and prevent annoyance, to a certain extent, from the escape of the vapor.

Advantages of the Apparatus over the Ordinary Methods.—1st.—Entire safety. There need be no care regarding the *due admixture of air*, as the size of the cone is so adjusted that enough of air will find its way through the crevices, and between the face and the instrument, to insure this condition, *in spite of* all endeavors to prevent it. 2d.—The patient breathes with comparative *comfort*, and very rarely struggles or resists; first, because the ether can never touch the face; and secondly, because there is always a *uniform* admixture of air, on account of the unvarying capacity of the cone. With the *towel cone*, on the contrary, or with the *sponge*, the capacity of the cone is constantly in danger of being diminished, indeed is necessarily diminished, through the pressure exerted upon it by the hands in holding it firmly to the face; especially during the struggles which are almost always excited when ether is given in this way. Sometimes, from want of attention, it is almost completely obliterated, and the patient in danger of mechanical suffocation, which is often wrongfully attributed to the irritating effects of the vapor of ether. To this cause, and to that which will be alluded to in the next paragraph, may be ascribed, in a great measure, all the failures in administering ether. 3d—There is no necessity *ever to raise the apparatus from the face after it has been once applied*, until the patient is thoroughly relaxed or breathing stertorously. In applying ether by apparatus heretofore in use, the latter is withdrawn every now and then from the face to replenish the ether, and this is generally done so deliberately that an inspiration of fresh air is effected, which, with an agent so feeble, comparatively speaking, as this, greatly retards the process. 4th—There is but little danger from fire, when operating by artificial light, there being no necessary escape of a dangerous amount of vapor, and no danger of spilling ether in upsetting the bottle or while pouring it into the inhaler. Several accidents have been reported from this cause, both in hospitals, and in private practice, in the care of well known surgeons. 5th—The operator and assistants, when operating about the face or upper part of the body, are almost completely protected from the inhalation of the surplus vapor which proceeds, in a greater or less degree, from all the ordinary contrivances, no mean advantage to many surgeons who are seriously incommoded by even a small amount of vapor. 6th—Saving of ether, a matter of considerable importance in hospitals, at its present price. An ounce or two is sufficient where one has become accustomed to using the inhaler. 7th—Saving of time, though this is not of so much consequence. From two to four minutes is as much as any one should require. 8th—The etherization may be intrusted, where assistants are scarce, as is frequently the case in country practice, to any sensible unprofessional person; since the amount of air required is always regulated by the instrument itself. 9th—Facility for cleansing; by simply unscrewing a nut, the parts may be separated from each other. The flannel should be well washed whenever it is soiled by saliva or blood, or it has an unpleasant odor.

Before we commence to use *ether*, we should be fully impressed with the *fact* that it *never* acts in the *sudden* and uncontrollable manner by which chloroform kills most, if not all its victims. It is impossible to do this. In most of the cases where death has been ascribed to ether inhalation, the untoward result has occurred from four days to even three weeks after the operation; in which cases I consider it simply absurd to attribute this to any anæsthetic, ether or chloroform. Within a few hours, I have no doubt it may occur, even after the patient has recovered consciousness perfectly; but here the matter is under the control of a surgeon, and there is time to interfere and prevent the fatal result; and when a surgeon leaves his patient, especially if he be debilitated, or of strumous habit, or has a particularly feeble or irregular pulse, within less than half an hour after the operation, without leaving a competent medical man with him, death should not be laid at the door of the anæsthetic. I have had to use stimulants freely (sometimes *per rectum*, when vomiting supervened) in such cases.

A matter of the first importance is to have a *pure ether*. I have no experience with any but that manufactured by Dr. Squibb, although I do not wish to insinuate that the production of other eminent manufacturers may not be good. The elaborate report of the Committee of the "Boston Society for Medical Improvement," asserts that this ether is so pure and anhydrous as to produce irritation, and that it is not so respirable as Powers and Weightman's. I have never had any trouble with it; at least, never since using it with an inhaler, and would advise all to use the purest and most concentrated article.

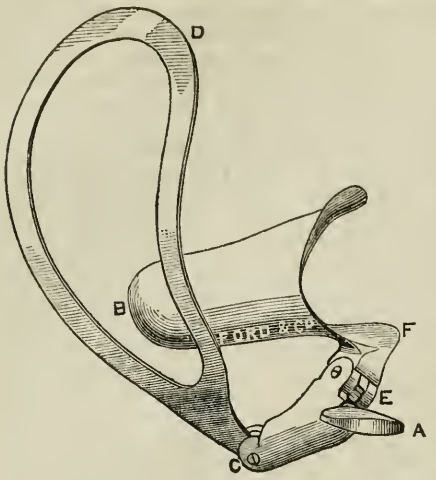
Another important preliminary to the administration of an anæsthetic is to have the stomach empty; to allow only a *very light* meal, *several hours* before, remembering that when the mind is disturbed by the apprehension of an operation, or even by that of anæsthesia alone, digestion is slow, if not entirely arrested. Although there is no considerable danger in giving it on a comparatively full stomach. Also, in cases of debility, or strumous habit, or excessive alarm, to allow a stimulant a few minutes before commencing the inhalation.

EMMET'S PERINEAL RETRACTOR FOR VAGINAL EXAMINATIONS.

Dr. Emmet, Surgeon to the Woman's Hospital of this city, has furnished us with the following description of his speculum:—

"This instrument brings the neck of the uterus into view, as with Sims's speculum, by retraction of the perineum, but with the advantage that an assistant is unnecessary. The patient should be placed in the same position on the left side, the lower limbs flexed well on the abdomen, with the upper or right leg in advance of the under one; the lower, or left arm, withdrawn from under the body, and flexed across the back, so as to rotate the chest as flat as possible on the table or operating chair. The proper position is absolutely necessary in the use of both instruments; and without it is observed in detail, a great advantage is lost. When properly ap-

plied, either will expose a larger portion of the vagina than can be done by any other instrument in use.



"After separating the instrument fully, the fenestrated blade, *D*, is turned up as represented in the cut; the vaginal portion is then introduced on the index finger of the right hand, at the same time the perineum is pushed backwards, and the instrument held firmly in position, while the thumb-screw, *A*, is turned by the other hand, until the instrument is adjusted. By the thumb-screw, the point, *B*, of the speculum is carried into the hollow of the sacrum; with the joint at *C*, the blade *D* can be adjusted on the right buttock; by carrying it in the direction *D*, as the lower portion of the instrument in the line *C*, *E*, *F* rests on the lower buttock, along the sulcus, and the vaginal portion is in the shape of a cone, the upper labium of the vagina is elevated. If the cervix uteri is not brought into view at once, a depressor may be needed to push aside the anterior wall, although as a rule it is not necessary. By elevating slightly the instrument at *F*, the point *B* becomes depressed so as to bring the neck often into view, when not presenting. As it is impossible to have a single blade of a size to answer for every case, as with Sims's speculum, a little manipulation is frequently needed when the vagina is unusually long or its wall relaxed; a depressor is therefore required; when once the neck is brought into view, it should be seized by a tenaculum, and drawn in advance of the fold, and it generally remains in position afterwards. The tenaculum may remain hooked into the cervix, as it is absolutely necessary to steady the organ properly during any manipulation, even when the neck is brought into view at once.

"I have used this instrument for the treatment of uterine disease, and for different surgical operations on the base of the bladder, with the greatest satisfaction. Having an experienced female assistant, who has been long accustomed to the use of Sims's speculum, I shall continue to use his instrument to a great extent in my office practice, from the fact that it is applied as soon as introduced. But for an examination without the aid of an assistant, and for long operations, this instrument, when properly applied, affords so great a facility, that I believe, after one has become familiar with its use, it will take the place of all others. It gives no pain, from the fact that the perineum is compressed to one side of the coccyx; and from the steadiness with which the retraction is maintained, I have found that this instrument is preferred to the jerking and unsteady handling of Sims's speculum by an assistant unaccustomed to its use.

"I am greatly indebted to the skill and perseverance of Ford & Co., of Fulton street, for putting into practice the principle, after many disappointments and modifications of the mechanical application. They have so constructed the instrument that one of several blades of different sizes can be attached at the joint *E* when required, although an average size has been fixed upon as the standard, which will answer for nearly every case by a little dexterity on the part of the operator."

Correspondence.

THE CHICAGO MEDICAL COLLEGE; THE CHICAGO MEDICAL SOCIETY, ETC.

Chicago, April, 1866.

To the Editor of the Medical Record.

Sir:—Since the date of my last letter, the seventh annual commencement of the Chicago Medical College has occurred. Twenty-two students were graduated; the *ad eundem* degree of Doctor of Medicine was conferred upon four candidates, and the honorary degree upon five. Prof. Byford delivered to the departing class a valedictory address, which was characterized by the good sense and true wisdom which mark all the utterances of this sagacious physician. His theme was entitled "The Philosophy of Trades and Professions"—a subject which gave ample scope for witty and happy comparisons between the influence of the practice of medicine and of the other callings which are pursued through life by the majority of mankind. In conclusion, however, the Professor sought to impress upon his hearers the fact that it matters not so much what one does as how it is done; the direction of one's effort is of greater importance than its degree: if true goodness and greatness constitute the ends in view, they may be attained through many various ways.

The College appears to be in very prosperous circumstances, considering its youth and the overshadowing prestige which still attaches to the Rush School. The course of instruction is arranged upon a methodical and scientific basis, far in advance of the majority of American medical schools. The undergraduates are classified into a Junior Class for the students of the first year, and a Senior Class for those advanced students who have successfully passed the examinations which conclude the junior year. By this arrangement, which is not merely nominal, but is rigidly enforced by the Faculty, the scandalous spectacle presented by an obstetrical lecture-room crowded with gaping greenhorns who cannot yet enumerate the bones of the body, is wholly avoided. In addition to a winter term of twenty weeks, there is a long summer term of lectures and clinical instruction by the college professors, which is in advance of anything elsewhere afforded in the Northwestern States.

The Chicago Medical Society has continued its weekly meetings through the past winter. Each alternate meeting is occupied as a pathological session, when the members exhibit whatever specimens of morbid anatomy they have procured during the previous fortnight, and also relate the particulars of any interesting cases which may have passed under their observation. The intervening evenings are devoted to the formal discussion of medical topics. During the past two months the time of the Society has been engrossed by the discussion of cholera. This interesting theme has secured a full attendance of the members. The pathology and treatment of the disease have thus far been dwelt upon at considerable length. At the next meeting the ques-

tions of contagion, quarantine, and cholera hospitals will be reviewed. The discussions have, so far, contributed little that is new in respect of the methods of dealing with the formidable pestilence. Prof. N. S. Davis recommends the use of nitrous oxide gas as a vital stimulant, to supply oxygen freely to the blood, and to relieve spasm and vomiting. Arguing from the effects of this gas in cases of syncope, the professor thinks it may be very beneficial in almost every stage of cholera. One fact which has been developed by this discussion is worthy of note: while the older practitioners who have passed through previous epidemics are unanimous in advocating the use of measures to arrest vomiting and purging, there is manifest among some of the younger members a disposition to regard these evacuations as fraught with safety rather than danger to the patient, and as indications of an eliminative effort which should only be opposed after the restoration of the natural processes of excretion. The whole matter of difference seems to turn upon the question of the nature of the disease. If it consists merely in a derangement of the nervous functions, the anti-evacuant and neurotic method of treatment must be most efficacious; but if it results from the intrusion of a specific poison which vitiates the watery portion of the blood to such a degree that the system can no longer tolerate its presence, that method which sustains the vitality of the patient, while it favors rather than opposes the efforts of nature, will be most serviceable. The terrible results of the stimulant and anti-evacuant treatment during previous epidemics, seem to indicate that any method which shall attempt to guide and to assist the natural processes of the disease is worthy of trial.

While the medical profession thus displays an enthusiasm which is most commendable, our public functionaries have relapsed into a deplorable condition of apathy. Agitated by the report of cholera at the New York quarantine ground, and instigated by the Chicago Medical Society, the city fathers issued a ukase which was printed and distributed to every house, at an early period of the winter, forbidding the discharge of kitchen refuse upon the streets and alleys of the city, and commanding a daily production of slop-pails, which would be called for by the public scavengers. Accordingly, on the day appointed for the inauguration of cleanliness, the curb-stones throughout the town were lined with an edifying row of kegs, cans, and pails, overflowing with cabbage-stalks, potato-parings, and soap-grease The advent of the new scavenger-wagons was anxiously awaited by the little folks, who flattened their noses all day against the window-panes, in their efforts to discover the promised apparition. Evening came, and the next morning, too, but still the unemptied tubs kept silent watch along the street. Several days elapsed before the magnitude of the joke was comprehended by the citizens. It was at length discovered that the whole scavenger troop was limited to ten dilapidated army-wagons and twenty spavined nags, which were incapable of active service outside of the city stables. For a population of nearly two hundred thousand souls the inadequacy of this provision was so ludicrously evident that all thoughts of sanitary reformation were hastily abandoned; the servant girls relapsed into the municipal custom of depositing the waste of the household in the streets and alleys; and we are reduced to our former dependence upon those faithful friends of man, the rats. We congratulate you of New York upon your Metropolitan Health Commission. It will not be many years before we shall resort to a similar organization, for Western people are not slow to adopt new improvements; but until that fortunate time, it will not be through any hygienic precautions that the healthy reputation of our city will be sustained. Yours, &c., M.

COMPLETE DISLOCATION OF THE HEAD OF THE TIBIA FORWARDS.

To the Editor of the Medical Record.

Sir: The following case has been communicated to me by Mr. John H. Harris, Medical Student at Bellevue. It is reported with so much clearness and intelligence that I have thought it best to send it to you for publication. The principal point of interest in the case is the great relief given by extension. The amount of extension employed was nine pounds, applied in the same manner as in Buck's apparatus for fracture of the femur. Very truly yours, Frank H. Hamilton.

"As accidents of this kind are exceedingly rare, I have made a record of the following interesting case, which came into my hands for treatment:

"On the 19th of March last I was called to see Hiram Weseott of Sandy Cove, N.S., a farmer, aged forty-five, who had a dislocation of the head of the tibia forwards. This man was standing between the beams of a shed, when the team suddenly starting, his heel was caught upon a small stump, and one of the beams striking him a short distance above the knee, his body was thrown forwards, producing a dislocation at the knee-joint. The femur was driven backwards and downwards, while the tibia looked forwards very nearly at an angle of forty degrees. The tendons of the hamstring muscle were not ruptured, but had slidden forwards past the condyle of the femur. Reduction was quite easily effected by extension, and without very much pain to the patient. After reduction I applied pasteboard splints, and in the course of an hour the patient expressed himself as quite comfortable.

"On the next day I saw the patient again; he was quite comfortable, but had been somewhat restless through the night. Sunday the 12th, three days after the accident, I removed the splints, and upon examination found the limb about the knee considerably swollen, and some ecchymosis in the popliteal region. Up to this time the patient had experienced little or no pain except during the night; but, contrary to my instructions, he had been moving about with the aid of his crutches. I again applied the splints, and left him quite comfortable.

"Tuesday, the 14th, I was early summoned to see the patient, and found him suffering from all the symptoms of acute synovitis, with the ecchymosis much more marked in the popliteal region. I at once proceeded to apply extension by means of a weight and pulley, which gave immediate relief.

"Visited the patient on the 17th, and found him comfortable so long as extension was kept up; but if it was removed, the pain would instantly return with great severity. The extension was kept up for several days until all trace of inflammation had subsided, when I allowed the patient to move about with the aid of his crutches, occasionally removing the splints to give passive motion to the knee-joint.

"After the lapse of ten or twelve weeks from the date of the injury, the splints were removed and an elastic knee-cap substituted. From this time the patient continued to improve, and was enabled to walk about with his cane. At the expiration of about four months from the time of the injury, he had so far recovered as to lay aside his cane and resume his occupation. With the aid of the elastic knee-cap he can now walk without any difficulty or perceptible limp.

"John H. Harris,
"*Sandy Cove, Nova Scotia.*"

INJECTIONS IN CHOLERA.

To the Editor of the Medical Record.

Sir:—Cholera is reported on shipboard at quarantine, and we may expect it in the city at any moment.

Most of our medical gentlemen have had experience in cholera, and have formed their plans of treatment, while others have not. To those who are undecided, I beg to say, the moment you get a case with the *characteristic watery stools*, put him in bed, and administer to him an injection containing two ounces of good brandy, and two ounces of strong coffee or tea.

Whether he is vomiting or not, put a mustard plaster over the epigastrium, and let it extend down over the abdomen. If he is thirsty, let him have ice in the mouth continually. Keep him in bed, and keep him warm, if possible.

If he will get up to stool, put him in bed again at once, and give another injection of the same kind and quantity. If he has cramps in the extremities, rub with dry flannel. Give no opium at all, unless there is considerable pain in the stomach or bowels; and then give but little, combined with small doses of calomel. Repeat the injection after each stool, and in a very short time the bowels will be checked, and you will have the gratification of seeing your patient out of any immediate danger.

If the watery stools at any time return, use the injection again as before. If the bowels have been checked for a considerable time, and you have given a number of doses of calomel, it will be safe to give a potion of castor oil, if it is deemed necessary.

This, in a few words, was my experience in the epidemic of 1854, not only in the cholera hospitals, but in private practice. In no case did this treatment fail to arrest the watery stools, when it was faithfully carried out; and the earlier you commence the treatment, the better it will be for your patient. If you can arrest early the rice-water stools, and keep them under control, you cannot have a very bad case of cholera, as a general rule.

We hear and read of cholera that destroys life very quickly, *without* any *purging* or *vomiting*. I confess I have never seen such cases, and I saw a great deal of the disease in 1849 and 1854.

If such cases occur, and possibly they do, the cholera poison must act upon other portions of the nervous system than were described by Prof. Clark in his learned lectures on cholera before his class, and which you are publishing in your excellent Medical Journal. Dr. Clark says: "The first perceptible effects of the cholera poison are upon the ganglionic nervous system, and especially upon that portion of the ganglionic system that presides over the alimentary canal, producing paralysis of those nerves; and the result is congestion of the mucous membrane of the intestines, and pouring out abundantly of water." Now if the cholera poison really destroys life without giving any of the characteristic dejections of cholera, then the poison must act upon other portions of the ganglionic nervous system which are not fully understood, or at least which are yet unexplained.

We go back to the treatment. If there is paralysis of that portion of the nervous system which presides over the alimentary canal, producing congestion of the intestines and serous hæmorrhage, why should not brandy or any other stimulant thrown into the bowels stimulate and restore that lost power, and again place the alimentary canal under normal and physiological control?

This paralysis is not the result of organic disease, but is *functional*, and the result of a poison introduced into the blood through the medium of a poisoned atmosphere; and why may not this paralysis be restored by direct stimulation? Whether this reasoning is good or bad, I hope it will not alter the effects of brandy injections in the treatment of cholera.

It should be remarked that the distressing and persistent vomiting ceases with the cessation of the watery stools; and then such medicines and stimulants as are considered necessary may be administered by the stomach. If the medical profession try this treatment, and find it good for nothing, they will abandon it.

If, on the other hand, they find it will control the purging and vomiting of cholera, they will feel that they are armed with a most valuable weapon, and one that will aid them greatly in overcoming a most formidable disease.

O. H. Smith, M.D.

New York, April 20.

THE N. Y. COUNTY MEDICAL SOCIETY (?)

To the Editor of the Medical Record.

Sir,—I almost failed to recognise my time-honored friend, "The New York County Medical Society" under your unusual designation in the report of its last month's proceedings, of the "Medical Society of the County of New York." Can you produce any authority for this violent change in the nomenclature? Why not with equal propriety say the "Medical Society of the County of Kings," of Queens, etc., etc.? The society has certainly gained all its prestige under the terse, compact name of the New York County Medical, and not under the awkward, unmusical one recently sought to be given it. I pray you, therefore, Mr. Editor, to desist from your iconoclastic tilts at authority both written and traditional, and return with all possible speed to the good old usage, while to retreat may yet be accounted masterly.

U.

New York, April 27th, 1866.

TREATMENT OF GLEET AND DISEASES OF THE PROSTATE BY CATHETERIZATION AND LOCAL APPLICATION.

To the Editor of the Medical Record.

Sir:—There are probably few diseases so intractable to treatment and so discouraging to the practitioner as some of the many deranged conditions of the prostate gland. Even the most successful of internal remedies are but too frequently uncertain, and injections by the ordinary syringe often fail to reach the diseased part. In order, therefore, to apply the intended remedy directly to the prostate, or to any part of the urethra which may require a local application, I have used the common vulcanized India-rubber syringe, to the nozzle of which I attach the curved half of an ordinary metallic catheter, with an opening at the point instead of at the side. I then introduce the instrument (previously filled with the liquid to be injected) until its extremity comes in contact with the diseased surface, and then inject its contents directly over the part requiring its application. Besides the advantage above shown, this instrument enables one, especially in cases of gleet, and even gonorrhœa, to discover the exact location of the ulcerated or otherwise diseased surface; and, at the same time, by frequent introduction, prevents the walls adhering together and thereby forming a stricture.

In every case in which I have used this instrument I have met with the happiest results, not having failed in any instance as yet to effect a complete cure. I would also state that by this method, the injection used need not be nearly so strong as that required by the ordinary syringe.

Yours, &c.,

H. Ellsworth Davis, M.D.

New York, April 2, 1864.

New Publications.

BOOKS AND PAMPHLETS RECEIVED.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Vol. xvi. 1865.

RECENT ADVANCES IN OPHTHALMIC SCIENCE, by HENRY W. WILLIAMS, M.D., of Boston. Boston: Ticknor & Fields, 1866.

METROPOLITAN BOARD OF HEALTH; CODE OF HEALTH ORDINANCES, AND RULES, AND SANITARY REGULATIONS. N. Y. 1866.

FINAL REPORTS OF THE SUPERINTENDENT AND TREASURER OF THE NEW ENGLAND SOLDIER'S RELIEF ASSOCIATION, 194 Broadway, N. Y.

ELEVENTH ANNUAL ANNOUNCEMENT OF THE PORTLAND SCHOOL FOR MEDICAL INSTRUCTION. 1866.

EULOGY ON THE LATE DR. VALENTINE MOTT, delivered before the NEW YORK ACADEMY OF MEDICINE, by Professor ALFRED POST, M.D.

REMINISCENCES OF DR. VALENTINE MOTT, by SAMUEL W. FRANCIS, M.D.

TRACTS FOR THE PEOPLE. No. 2. By EDWIN M. SNOW, M.D., Superintendent of Health, Providence, Rhode Island.

ASIATIC CHOLERA, by W. F. BURRALL, M.D. New York: William Wood & Co., 1866.

CITY DOCUMENT. No. 9. CITY OF BOSTON: QUARTERLY REPORT OF THE CITY PHYSICIAN. January, 1859.

Medical News.

APPOINTMENTS.

UNIVERSITY MEDICAL COLLEGE, N.Y.—Dr. W. H. VAN BUREN has resigned his professorship of Anatomy in this institution, and Dr. W. Darling, of London, has been elected to fill the vacancy thus created. Dr. John T. Metcalfe has also resigned his professorship of Practice of Medicine and Pathology, and Dr. A. L. Loomis has been nominated to fill the chair.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—Dr. H. G. PIFFARD has been appointed assistant to the chair of Practical Medicine and Pathology.

Dr. JAMES L. BROWN has been appointed to conduct the class of Diseases of Women in the Demilt Dispensary, vice Dr. E. R. Peaslee, resigned.

PERSONAL.

PROF. JOHN W. DRAPER, of the University Medical College, has been complimented by a translation of his work on "The Intellectual Development of Europe," into Dutch, Italian, and German. His "Future Civil Policy of America" has also been translated into German by Mr. Bartels, Librarian in Wolfenbüttel, and is issued by a Leipsic firm. His forthcoming "History of the American Civil War" will be produced in England, France, and Germany, simultaneously with its appearance in America.

ON SURGICAL MALPRACTICE.—Prof. George C. Blackman of Cincinnati, aided by Hon. Stanley Mathews, has undertaken the preparation of a volume on surgical malpractice. It is announced that it will probably be ready early in the fall.

Dr. THOMAS WATSON, of London, has been unanimously elected for the fifth time President of the Royal College of Physicians.

DR. WM. A. HAMMOND, ex-Surgeon-General, U.S.A. is at present in Paris, having registered at the office of Bowles, Drevet & Co., 24 Rue de la Paix, on the 6th ultimo.

DEATH OF PROF. JOSEPH M. SMITH.—We are called upon to make the painful announcement of the death of Professor Joseph Mather Smith, which took place at his residence on the morning of April 22. We shall present our readers with a sketch of the life of this distinguished physician, at some future time. He was seventy-seven years of age at the time of his death.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.—At the next stated meeting, May 7, 1866, Dr. Wm. H. Thomson will read the concluding portion of his paper on Chlorosis, referring mainly to its treatment. Dr. Chas. F. Taylor will read a paper, entitled "The Initial Cause of Uncomplicated Lateral Curvature of the Spine."

SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS.—This Association held its first meeting in N. Y., April 23d, and organized by appointing his honor the Mayor temporary chairman. The act incorporating the society was read. The following officers were then elected: *President*, Mr. Bergh; *Vice-Presidents*, Hon. J. T. Hoffman, Rev. H. W. Bellows, Peter Cooper, Hon. George Bancroft, Charles P. Daly, Geo. T. Trimble, Esq., William H. Aspinwall, Esq., Moses Taylor, Esq., Marshal O. Roberts, Esq., and Alex. T. Stewart; *Secretary*, W. C. H. Waddell, Esq.

THE INTERNATIONAL SANITARY CONFERENCE, created at the suggestion of the French Emperor, is now in session at Constantinople, and engaged in the investigation of the origin of the choleraic epidemic, which last summer swept away some fifty thousand of the inhabitants of that city.

Its members are subaltern officers of the legations resident in Constantinople, with the exception of the French and Portuguese representatives, whose diplomatic rank is much higher; and they only seek medical opinions as emergent questions or technical disputes arise. Certain radical defects in the organization, according to some authorities, have by no means tended to produce harmony in counsel.

Meanwhile the Sublime Porte has sent a commission of his own to Mecca, Medina, and other holy places in Arabia, who are now occupying themselves with hygienic expedients, among which will probably be the proper burial of the large number of animals sacrificed on the occasion of the Mahommedan pilgrimages.

The attention of the authorities has also been called to the fact, that the greater part of the Turkish victims have been interred not more than two feet beneath the soil. In view of the alleged fact, that owing to the rigid quarantine the islands in the Archipelago and Greece proper were unvisited by cholera, it is proposed to exercise more than ordinary vigilance in bringing the tide of human travel under the government of still more stringent laws.

CHOLERA AT QUARANTINE, N. Y.—The steamship Virginia arrived at this port on the 18th ult., with Asiatic Cholera on board. No cases of the disease, which broke out during the passage, and were over one hundred in number, were reported as having occurred among the cabin passengers. The vessel now lies quarantined in the "Horseshoe," just this side of Sandy Hook, and the hospital ship is anchored close by her. The well passengers were removed to the steamer Illinois, with the exception of those in the cabin, who remained in their old quarters on board of the Virginia. The total number of deaths up to our hour of going to press, was fifty-two, with seventy-nine still on the sick list.

Cholera at Halifax Quarantine.—The following is an extract from a private letter which we received from Halifax, bearing date April 17:

"I suppose you have heard that we have a cholera ship in port. *There is no doubt as to the disease being cholera, and of a severe type*, although I notice it has been denied in some of your papers. Up to the 14th two hundred had died. Few if any new cases have occurred since she was taken in charge of by the health officers; although the pilot who brought her to this port, and family have been down with it; one of them died. Our quarantine station is only three miles from the city, so that we are likely to have it here before long.

"I have just heard that one health officer died on shipboard last night."

Cholera has again broken out in the country districts of Guadaloupe. The medical staff has been augmented, and a commission appointed to make inquiries and point out a remedy for the epidemic.—*Lancet*, April 7, 1866.

Cincinnati Academy of Medicine.—The annual election of officers resulted in the choice of the following gentlemen: Dr Thomas Carroll, President; Dr. Chas. Woodward, Vice-President, and Dr. Graff, Secretary.

Metropolitan Police Surgeons.—An act enabling the Police Commissioners to appoint an additional number of surgeons passed the Legislature on the 12th ult. In accordance with the adopted recommendation of the Conference Committee on the bill to regulate the salaries of the Metropolitan Police, they will receive $2,250 per annum.

Dysentery in Canada.—We learn from exchanges that our Canadian neighbors are viewing with alarm certain dysenteric tendencies in their midst, and are clamorous for a rigid quarantine to prevent the introduction of any epidemic into their cities from abroad.

The Health of Washington, D. C.—Small-pox has been prevailing in the city to a considerable extent. One or more schools have been broken up in consequence. The physicians of the city report a large increased percentage of sickness arising from derangement of the bowels. Sanitary precautions to prevent the appearance of cholera are enlisting discussion, but as yet little or no action has been taken by individuals or city authorities. In view of the probability of an approaching sickly summer, the adjournment of Congress between this and the middle of June is looked upon as a certainty.

Scurvy is reported to be quite prevalent in the British mercantile navy.

A New Hospital.—The Battery barracks have been transferred by the general government to the Board of Health for Hospital purposes.

Excise Powers of the Health Commission.—Our announcement in the previous issue of the passage of the bill conferring the exclusive power to grant licenses for the sale of liquors upon the Metropolitan Board of Health, was, as far as the date was concerned, premature. This desirable result was not in fact accomplished until the 13th ult., when the House recorded its verdict by 66 ayes against 31 nays. This bill requires all policemen to report the names of persons selling liquor within their respective beats, and authorizes the employment of the police force to execute the provisions of the act. The Health Commissioners accordingly organized as a Board of Excise on the 20th ult., when it was determined that no member on duty under the original board should act as Inspector of Excise.

Model of Hicks U. S. A. Hospital, Baltimore.—Surgeon-General Barnes, U.S.A., has recently had constructed a very beautiful model of the Hicks U. S. General Hospital, at Baltimore, Md., which is designed to be sent to France for exhibition at the Paris Exposition in 1867. The model is made of wood, and is on the scale of one inch to twenty feet.

Sanitary Condition of Key West, Florida.—According to advices of the 7th ult. from the above-named city, under the signatures of the Mayor, the municipal and U. S. health officers, there is no truth in the reports that cholera, yellow fever, or other epidemic diseases exist there. These officials state that, on the contrary, the public health has been unusually good.

The Medico-Historical Society are engaged in collecting materials for their fourth "Annual Medical Register," which will appear in June next, under the editorial management of Dr. Guido Furman.

Hippophagy in Berlin.—Great success has attended the introduction of horse-flesh in Berlin as an article of human food. In 1865, two thousand two hundred and forty-one horses were slaughtered for this purpose. The meat is perfectly wholesome and tolerably palatable, resembling rather coarse beef.—*Lancet.*

The State Woman's Hospital.—In our last issue we noticed the action of the City Council in revoking the grant of land made by the city authorities some years ago, to the Board of Governors of this Hospital, on the ground that the institution had never entered into possession. Before a final action was taken by the Board of Aldermen, it was shown that the issue was a false one. On being referred back under the circumstances for reconsideration, the Common Council rescinded the previous act. This land was at one time used as a Potter's Field, and after the removal of the remains to Ward's Island the board has been for several years past occupied in preparing a site by lowering the grade some fifteen or twenty feet to a level with the street. A building, on the corner of Fiftieth street and Fourth Avenue was commenced last year, and will be finished next fall. It will contain about one hundred beds, a large operating or lecture-room, and in every respect will be complete in itself as a model hospital. The plan has been drawn with great care, so as to embody all the modern improvements, and is to consist of a centre building, with one on each corner of the block. The whole will constitute, it is claimed, one of the finest hospitals ever erected in this city, with accommodation for some four hundred patients. The managers will continue to occupy the institution on Madison Avenue until this portion in process of erection is completed.

Destructive Mule Distemper.—A frightful mortality is reported among the mules on the various plantations bordering on the Mississippi. No less than two thousand in the vicinity of Vicksburg have died within a period of forty-eight hours. The disease is represented as having severe colicky symptoms, which speedily prove fatal. Precautionary measures are being taken by the planters to prevent its spread.

Original Communications.

DISINFECTANTS.

By EDWARD R. SQUIBB, M.D.,
OF BROOKLYN.

(Concluded from page 102.)

These illustrations are particularly intended to show, first, that the best, if not the only, way to prevent pestilential fermentation is to prevent the formation of, or to remove, that pabulum which is essential to the process, namely, filth; and, second, as absolute cleanliness cannot be at once attained, if at all, in communities like this, to show by what kind or character of agencies these hurtful reactions must be controlled. It was also shown that many of these reactions are so delicate and sensitive in character that they may be modified, suspended, or even destroyed, by a great number of agents—indeed by almost everything which materially modifies the condition of the pabulum. The principal difficulty, then, consists not in the selection of a disinfectant, since all are effective, even the most opposite in character, but rather in the adequate application of a process of disinfection; for once started, with a widely diffused pabulum that is always receiving new accessions, the fermentation increases and spreads with a rapidity that soon leaves the best directed efforts at general disinfection far behind. Any disinfectant then becomes useful in proportion to the scale upon which it can be practically applied; and such application depends largely upon the simplicity, cheapness, and abundance of the agent, particularly in time of epidemic disease. Except for individual and special uses, and these in the houses of the better and more cleanly classes, where perhaps they are rarely needed, a large class of the most active agents, as bromine, permanganates, etc., are out of the question; while even chlorine, the sulphates of iron and copper, carbolic acid, and the patented powders and liquids, taken altogether, fall far short of the desirable universality. Archimedes, to move the world, must have a long lever as well as a strong one.

In coming to the consideration of the prominent special agencies for disinfection, in special as well as general cases, it is well to remember first, that:

A plentiful supply of water and air, and a good system of sewage and drainage as inducements to cleanliness, and a good police, directed with knowledge and armed with power, must always be regarded, and can alone be considered as effectually disinfectant for cities. But such police, as well as the private citizen, will often need auxiliary means for special cases and purposes, as well as for general and public use; and their auxiliary and secondary character should never be lost sight of. It may be regarded as a sanitary axiom that natural disinfection, whereby the greatest practicable cleansing is attained, should always precede every attempt at artificial disinfection. Then the greatest cleanliness having been attained, and the special purposes accomplished by the special agents, the field of application for the general disinfectants is narrowed within its most practicable and most manageable limits. These principles of disinfection established and borne well in remembrance, it can only be necessary to refer in a cursory manner to the newer applications of one or two of the special agents, and then merely to enumerate others, somewhat in the order of their importance, in approaching the main object of the paper.

For very nice use in disinfecting and deodorizing the air of a sick-chamber, where the odor of other gaseous disinfectants would be more objectionable, a well regulated elimination of ozone, by means of phosphorus, may be resorted to with success.

A stick of phosphorus, or half of a stick for an ordinary chamber, laid upon the flat surface of an ordinary tea or breakfast plate, and water enough poured upon the plate to immerse two-thirds of the stick, leaving the remainder exposed to the air; and the plate then placed upon a table or mantelpiece out of the reach of accident or disturbance, and yet where it is under constant observation, constitute the materials and conditions proper to accomplish this. That portion of the phosphorus which is immersed undergoes no change, and produces no effect; and therefore the effect to be produced may be easily regulated by adding and abstracting water, and thereby exposing more or less of the phosphorus to the moist air. For example, in a sick-chamber during the day, where the opening of doors and the movements of attendants tends to greater disturbance and change of the air, the cylinder of phosphorus may be left one-third or more exposed above the surface of the water, at least until the odor of phosphorous acid becomes disagreeable. Then at night, when the chamber is to be closed and still, more water is poured upon the plate, until perhaps but a line of the cylinder is exposed above the surface. By morning the evaporation of the water will have increased the amount of surface exposed; but if not sufficiently, some of the water may be dipped out of the plate to produce the increased daytime effect. When the desired disinfection has been accomplished, and the action is to be suspended for a day or two, the simple filling the plate up with water until the whole stick is immersed accomplishes that end. In the dark the exposed portion of the phosphorus shines, casting a somewhat lurid light around the apartment, and the vapors arising from it are visible and moving. This latter effect particularly should be hidden from the view of the patient, since, whether there be a tendency to delirium or not, the half-sleeping mental condition of most sick persons is very impressible, and may be injuriously affected thereby. Phosphorus, from its easy inflammability, is a dangerous substance at best, and therefore this means of disinfection is never perfectly safe, and can only be judiciously adopted under the direction of a medical man who will take the time to think what he is doing, and the pains to give proper directions and cautions, and who knows the responsibility and risk which he assumes. An accident by which the phosphorus, whether in buying it, using it, or in keeping for after use, may be allowed to become dry, will result in its spontaneous combustion, and in setting fire to anything which may be near it; whilst a small particle even, taking fire upon the skin, makes the worst variety of burn, and risks setting the clothing on fire. It should always be kept in water, and when not in use, in a bottle, wholly immersed. When accidentally thrown from the plate or dropped from a broken bottle, it may while wet be safely picked up with the fingers and replaced in any vessel of water at hand; but when it has been out of the water long enough to become dry, it should never be touched until it is remoistened, and the hand that touches it should also be wet. In common with all other means of deodorizing, this is very apt to be overdone, particularly since it does not, like most others, become unbearable by its odor, and thus give notice. Ozone in the atmosphere in large proportion is noxious; and even in the proportion which may be obtained by mismanagement of this process, it is capable of producing disagreeable, if not injurious effects. One of the first evidences of its presence in undue proportion is a congestion of the mucous linings of the air, passages, causing that dry, uncomfortable feeling about

the posterior nares and fauces so well known in the commencing stage of a catarrh. It is not supposed to be possible, however, so to mismanage the process above described as to render it dangerous, or even seriously injurious from this cause; neither is it supposed that enough phosphorus vapors could be introduced into the air of apartments to produce phosphorus disease of the bones. Its use as a deodorizing disinfectant should always be regulated with care, and with judgment be adapted to the desired effect. It will then rarely, if ever, be continuously required, no matter in how small quantities the ozone may be liberated; but by intermittent use, say for twelve or twenty-four hours, once or twice a week, will accomplish all that could be expected from it. Judiciously used, therefore, this will be found the most effective, as well as the most simple, neatest, and cleanest of all similar means; whilst the phosphorous acid which it incidentally introduces in very minute proportion into the air, has less odor, and is less irritating and more healthful in its effects than the corresponding products of the other similar agents.

Next to this, in practical efficiency for such special uses, stands chlorine, which, if slowly liberated in the small quantities really required for these uses, is hardly objectionable to the most delicate condition, and certainly never hurtful, whilst it is thoroughly effective and perfectly safe in use. It, however, requires careful and judicious management, and a moderate degree of attention and knowledge to secure these results and avoid overdosing. In use it is less liable to be overdone than the method last mentioned, because the odor is so irritating and disagreeable as to secure a proper correction. It is best liberated from a finely ground mixture of common salt and binoxide of manganese, by means of cold diluted sulphuric acid, and these materials for generating it are put up in packages by many manufacturers, with plain, simple directions for use.* In this form, though not very expensive, it is more so than the phosphorous method, but is safer in its management, whilst the residue from its use is admirably adapted to correct the fetor and destroy the poison of excretions.

About 200 grains of the common salt mixture and half a fluid ounce of the sulphuric acid mixture liberate in the course of twelve or twenty-four hours about fifty cubic inches of chlorine, giving it off pretty rapidly for the first two or three hours, and very slowly afterwards.

Now, if these materials be mixed in the bed-pans or close-stools of a chamber or ward, and be allowed to stand until these vessels come to be used for receiving the excretions; the air of the apartment, the neighborhood of the bed, the vessel itself, and, finally and most important of all, especially in connexion with some late views in regard to the propagation of cholera by or from the dejections, these latter are all thoroughly deodorized and disinfected. This residue, thus susceptible of being so efficiently utilized, holds a considerable quantity of chlorine in solution; but besides this, it contains the sulphate of the protoxide of manganese, which results from the process by which the chlorine is liberated; and this, and the sulphate of soda and the excess of sulphuric acid used, happen all to be very effective disinfectants. The force with which the dejections are discharged into the vessels will not be sufficient to stir up the thick residue (which should have been previously spread or rinsed round over the bottom of the vessel), and therefore the stirring should be done with a short stick before the contents are thrown into the cesspool or sewer pipe; and then, when the vessel and stick are rinsed out and returned to their place, a new portion, or, if the dejections are frequent and small, half a portion, is to be at once mixed in the vessel, using this same stick to stir the mixture with, and leaving it in the vessel until the moment the next dejection occurs. It is then taken out by the patient or attendant, and held till required for that occasion. Some such management in the case of cholera would most thoroughly disinfect the dejections, and probably disarm them of all hurtful tendency, and at the same time keep the cesspools and sewer pipes in an improved condition, since the more frequent the dejections the more frequently would these latter receive the chlorine residues. And, in hospital practice, the more active the disease (cholera for example) might be the more active would be the disinfection, both of the atmosphere of the ward, and of the sewers, waste-pipes, etc. When to be used in this way, on the large scale, the common salt mixture or brown powder should be dispensed to a ward in tin cans, containing say five pounds each, with a little tin ladle adjusted to hold between 195 and 200 grains when filled and struck off level with the edge by means of a spatula or other contrivance used to fill the ladle with; and the sulphuric acid mixture would be dispensed in bottles holding say half a gallon, and accompanied by a small graduated measure or other means of measuring half a fluid ounce. In this way the expense of the plan is very much reduced and the application facilitated and extended, since in large quantities the common salt mixtrue would not cost over thirty cents per pound, including the tin can; and the sulphuric acid mixture not over eight cents per pound, exclusive of the bottle.

Bromine is an excellent disinfectant, and evaporates spontaneously and so rapidly that the simple removing the stopper from a narrow-necked bottle of it in an apartment will soon deodorize the atmosphere, and if the room be warm will become irritant. Like nitrous and sulphurous acids, however, it is very difficult to manage without becoming either inefficient or irritating, whilst it is an expensive and corrosive liquid, so volatile and irritant that an ounce of it accidentally spilled in a chamber would render the air dangerous to life. Like chlorine, iodine, etc., its activity as a deodorizing disinfectant depends upon its union with the hydrogen of the watery vapor of the atmosphere to produce hydrobromic acid, setting the oxygen of the water free in the form of ozone probably.

Chlorinated lime, or, as it is commonly miscalled, chloride of lime, and creasote and carbolic acid, also partake somewhat of the character of gaseous disinfectants or deodorizers, or at least occupy the intermediate

* This, the best method of liberating chlorine without heat, is that of the German chemist Wiggers, and his formula is as follows (Fresenius, Qual. Analysis, Eng. Ed., 1859, p. 28):—"Mix 18 parts of finely ground common salt with 15 parts of *finely pulverized* good binoxide of manganese; put the mixture in a flask, and pour a *completely cooled* mixture of 45 parts of concentrated sulphuric acid and 21 parts of water upon it, and shake the flask; a uniform and continuous evolution of chlorine gas will soon begin, which when slackening may be easily increased again by a *gentle* heat."

This excellent method was adapted to disinfectant uses in hospitals, with directions for the preparation of the materials, and for use, by the writer of this paper, some years ago, for army use; and throughout the war it has been very largely used. Through this large use it has now become an article of common trade, and is doubtless easily accessible, in all the larger cities at least. There is neither secresy, complexity, nor other difficulty in connexion with it. Any tiro can prepare it from the very beginning. The materials are made and sold by most manufacturers, put up after the plan used for the army, as follows: A large pasteboard box contains in one end a pasteboard drawer, in which are placed 130 packages, each containing about 195 to 200 grains of the common salt mixture. The remainder of the box is occupied by a strong half-gallon bottle, containing the sulphuric acid in due proportion to the number of powders. The bottle and box both bear labels explaining the composition and mode of preparing the contents, with simple directions for use. Besides this, the powder and acid mixture are both supplied in bulk by manufacturers for use in hospitals, etc.

ground, partaking of the nature of both gaseous and solid disinfectants, and are all available and effective for many special purposes. Creasote and carbolic acid, as well as the coal-tar from which the latter is separated, are all powerfully antiseptic, and possess the singular property, not only of arresting the putrefactive process, but also of preventing its recurrence, and of destroying the lower orders of living beings which belong to or result from these fermentations. So long as it remains in the pabulum it seems to defend it against all attacks of the nature here considered; but it so happens that it is itself easily decomposed through reactions of a purely chemical character, and its effects are thus somewhat limited.

The creasote of the present day is nearly, if not all of it, a mere impure form of carbolic acid; and as it is equally available with the latter for all these purposes, and cheaper, as well as more generally accessible, it is perhaps best adapted to the special uses now to be briefly noticed. Common commercial creasote is soluble in about the proportion of one fluid drachm to ten fluid ounces of water, by shaking them together in a bottle. But a better solution for burns and scalds, as well as for disinfectant purposes, is one fluid drachm (or a teaspoonful) to a pint of water. Such a solution made in quantity does not cost over one cent per pint, and is particularly applicable to hospital uses. This is the Aqua Creasoti or creasote water of the U. S. Pharmacopœia, which should always be at hand where burns and scalds are liable to occur. For dressings and many other of the uses to which it is specially applicable, it may be still further diluted at the time of application. As an occasional wash to unhealthy sores; as a dressing (out of contact if the surface be irritable) to suppurating injuries, particularly in warm weather; as an addition to the rinsing water for sponges, bandages, oiled cloths, napkins, clothing, etc., which have been or are to be used about sores, etc.; as a wash to sponge off the top of bedside tables, chairs, etc.; and, in short, for profuse use in general about sick or bedridden persons and their appurtenances and dejecta, it is one of the most effective agents yet known, and has the great advantages of simplicity, safety, cheapness, and easy accessibility. In common with all other agents, however, it requires intermissions in use, and, after a time, may with advantage be substituted by agents far inferior to it in antiseptic power. Besides, it has a most persistent, strong, and disagreeable odor, which often, though tolerable at first, becomes so offensive as to be injurious. It is hence better adapted to hospital than to private uses, except where in the latter cases the odor to be corrected and prevented is worse than that of the agent, as, for example, in many cancerous diseases.

Permanganates in solution are very efficient antiseptics. They are not volatile, and therefore odorless and antiseptic only; that is, they do not at all affect existing effluvia in the air, except as the effluvia are brought in contact with the solution. As washes and as dressings for sores, they are, as commonly prepared, more irritant than creasote water; whilst for the purposes of disinfecting sponges, bandages, etc., they are not applicable. For injections, as in cancerous disease of the uterus, they are, when free from caustic alkalies, specially well adapted, and frequently odors may by their use be prevented at their source, which have rendered chambers, or even entire dwelling-houses, offensive. Although safe, and of easy application, the solution requires careful adjustment to each case when used as injections or as topical applications, to avoid caustic or over-stimulating effects; and these solutions must be kept carefully out of contact with organic matter, since they are easily and rapidly decomposed thereby.

The permanganates are complex compounds, the purity of which is important, and not easily judged of by appearance, whilst they are besides expensive, and not generally accessible.

Solutions of sulphite and hyposulphite of soda; of the chlorides of zinc and iron; of both the sulphates of iron; of the nitrates of lead, zinc, and iron; and, indeed, of a very large number of other chemical substances, are all efficient antiseptics or disinfectants, and may each be used as specially adapted, or when specially accessible, to some purposes or conditions. All fulfil the prominent indications of most conditions, but not in like degree, nor with equal convenience in all.

The same may be said of the various patented and self-lauded powders and liquids, all of which are more or less complex compounds of the well known agents referred to in this paper, mixed with absorbent powders, and generally managed so as to fulfil the first and prominent indication to their use—namely, to make money. The well educated physician, acquainted with proper authorities, can no more be satisfied with a single article or compound to subserve all his purposes as a disinfectant, than he can with a single drug or a single prescription with which to treat all his conditions of disease; and patents and patented articles in the medical science and art are but clumsy, slovenly, undignified, illiberal substitutes for knowledge, which involve concealment and deception, and very often mask active and injurious ignorance.

One remark deducible from the character of the processes involved in the necessity to disinfect, may be useful as applicable to all means of special disinfection—namely, that the agents should be occasionally changed or intermitted. For example, a suppurating surface may be so long dressed with creasote water that, although one particular class of reactions is prevented, those of some other class may be called into activity or fostered, and such may have a like tendency to interfere with the reparative processes of nature. This is but another application of that well known experience in surgery which indicates occasional changes in the character of dressings, no matter how simple or effective they may be at first. Again, a chamber or hospital ward may be much more easily rendered injurious to the inmates by the uninterrupted use, month after month, of any given gaseous disinfectant or deodorizer, even the very best than if an occasional change or intermission be made.

We now come to the prominent object of this paper—namely, to endeavor to show, in view of an apprehended invasion of Epidemic Cholera, that there are, within easy reach and in great abundance, two simple agents which are as thoroughly, as promptly, and as surely disinfectant, for general uses, as the nature of the infecting agencies will admit of in the present state of knowledge; and that, by the exercise of a reasonable amount of skill, judgment, and forethought, on the part of the medical profession and the educated classes of the community, these agents may be made eminently useful, and all-sufficient as adjuncts to the greatest attainable cleanliness. In the two common substances, charcoal and lime, may be found agents which, for general disinfectant purposes on the large scale, leave little to be desired; since, used together or alternately, they fulfil more of the indications, and do it better, than any other simple substances. No new evidence of this can or need be adduced, since to collect and epitomize the knowledge upon the practical use and value of these agents as disinfectants would far exceed the limits of this paper. The tendency is, however, so great to overlook simple agencies which lie at our doors, and to forget the accumulations of knowledge which have lost the charm of novelty, as to justify, if not to demand, a re-

view of a few of the prominent qualities upon which the utility of these agents depend, with a view of recalling attention to them at the present time of need.

Charcoal, the more freshly made the better, absorbs, under ordinary circumstances, say fifteen or twenty times its own volume of all the hurtful vapors and gases eliminated in the putrefactive process, and attracts with much promptitude such vapors from the atmosphere around it. All such vapors are held permanently in its pores, and some are decomposed by it into more simple combinations. Partial or even entire saturation with one gas, does not prevent the absorption to a very considerable extent of others; and these absorptions and decompositions by the charcoal go on for two or three weeks, and in the case of some gases longer. Upon this absorption, condensation, and decomposition of gases and vapors, and upon its antiseptic properties of preventing and arresting the putrefactive process, which must precede the development of the lower orders of organic life, and the elimination of noxious effluvia, does charcoal mainly, but not entirely, depend for its efficacy as a disinfectant; and no substance, whether simple or compound, rests upon a better foundation or covers a broader ground. The conditions adapted to its maximum efficacy are its either being freshly made or well kept, and being in a state of coarse powder, and these for obvious reasons; and yet the fine and comparatively worthless residue from kilns and receptacles where it is kept in large quantities is very effective as a disinfectant. An ordinary house-pa lful of this thrown over the surface of the contents of a privy sink or cesspool once a week, or even once in two weeks, especially if alternated with l me, will first, by covering the surface, lessen the atmospheric contact necessary to carry on the processes by which effluvia are produced; second, by extracting moisture from the surface with which it is in immediate contact, it will form a crust in which both the chemical and vital processes are obstructed, and which crust partially seals up the masses beneath, allowing the fluid portions to drain off undecomposed into the earth; third, by forming a filter upon the surface, through which all emanations from below must pass before they can become noxious, and thus filter them out; and fourth, by forming a partition between the fermenting mass below and the new accessions from above, and by absorbing and fixing the latter, it will tend to prevent extension of the proces-, and allow the masses below to be smothered out and exhausted. The applicability illustrated in this single example of its action and uses can be easily extended and adapted by common sense to the various other general purposes for which such agencies are required. Charcoal is produced all over the world, and is easily and cheaply obtained in sufficient quantities almost everywhere; and almost any mill, however crude and simple, will grind it rapidly into the coarse powder most available for disinfectant purposes.

Lime, ordinary qu cklime, produces mechanical and chemical results equal, if not superior, to those of charcoal, but of a character so different as to render a judicious combination of the two better than either alone. It has been shown that the primary character of all the putrefactive processes is one of oxidation, and that the atmosphere as a source of oxygen, under certain conditions of moisture and warmth, is indispensable to this particular oxidation. The results of th s oxidation are a set of oxides, liquid and gase us, generally of either an acid or an oily nature, and to these are superadded the lower orders of organic life. Now lime is a prompt and active caustic alkaline substance. It combines chemically and greedily with its weight of water, and with sixteen hundred times its volume of watery vapor, without losing its solid and apparently dry condition. In absorbing th's large proportion of watery vapor, heat is produced in sufficient amount to cause an active circulation of the atmosphere around the lime; and if the supply of moisture be sufficiently rapid, the heat will be sufficient to entirely destroy the process of fermentation. Again, in absorbing this large proportion of watery vapor from the atmosphere around it, of course all the gases, effluvia, spores, etc., of which this aqueous vapor is the solvent or carrier, are absorbed with it, and subjected to the destructive action of its caustic nature. Now one cubic metre of atmospheric air, equal to, say twenty-eight cubic feet, when saturated with moisture, holds about 140 grains, but occasionally contains as little as 14 grains. The same volume of air contains, under varying conditions, from 7 to 12 grains of carbonic acid, the average being about 9.4 grains; and of organic matters chiefly carried by the aqueous vapor, the variations will range from one-quarter of a grain up to 800 grains, the general average, however, being from 1 to 1.5 grains. The other gases and vapors are in much smaller proportion, and besides, are supposed to be less noxious. An ordinary dwelling-house apartment contains about one hundred times this volume of air, and will therefore contain an average of say 3,500 grains of water and 940 grains of carbonic acid, and 150 to 200 grains of organic matter. Now, to deprive this volume of air of one-fourth part of its noxious impurities would be to change it from the greatest ordinary general insalubrity to a healthful condition; and this would be easily accomplished within the practical working capacity of a quarter of a pound of lime within forty-eight hours. The lime not only combines chemically with all acids and acid vapors, as well as with the water that carries them, but it also combines with all oleaginous matters and products, fixing them into permanent solid and generally insoluble combinations, no matter whether the oleaginous matters be rancid or not. As a caustic alkali it, in common with other chemical substances, poisons the pabulum of organic life, and by its slow and difficult solubility it remains in these pabula longer than any of the more soluble chemicals, and thus goes further in effect. Besides this, as a caustic it destroys the delicate cell-walls of organic life, and coagulates their albuminous contents. In the form of coarse powder, either alone or mixed with charcoal, it is thus applicable to many of the uses of a general disinfectant, whilst in the form of whitewash it offers another series of useful applications, scarcely less important and equally simple.

In purifying and disinfecting human habitations, almost everything may be whitewashed in an emergency; and in the application to floors and other wood-work, whether painted or not, and even to articles of furniture, it permeates cracks, fissures, and spongy surfaces, which can be cleansed and purified as well in no other way, whilst it may be washed off from surfaces to which it is not permanently appropriate with the certainty that in once drying on, its office has been performed.

An empty tenement-house or other infected building, once or twice well filled with wood smoke from a fire made in the cellar, and then well whitewashed all over, will probably be as perfectly disinfected as it could be by any other means whatever, and certainly as easily and as cheaply. The smoke carries creasote, charcoal, acetic acid, and carbonic oxide and acid, with aqueous vapor enough to dissolve and diffuse them, and with these penetrates all spaces, even the dark and hidden abodes of the cryptogams otherwise inaccessible. The temperature of the smoke very much aids the laws of diffusion, by which its gases and vapors are rapidly

disseminated equally throughout the whole space and brought in contact with all the surfaces and recesses; and this temperature also increases the carrying capacity of the smoke by which its solution of creasote and carbonaceous matter is firmly held until condensed by contact with the cooler surfaces. Smoke thus has some penetrating and pervading qualities not possessed to the same extent by other gaseous disinfectants. After such smoking a general, thorough whitewashing completes the effective process. From this brief review and illustrations, it may be seen that it would be difficult to conceive of two agencies, as charcoal and lime, which together would better cover the whole ground involved in this subject of general disinfection, or two which are so universally accessible, so easy of application, so safe, so simple, and so cheap. Lime may, like charcoal, be ground fine enough for disinfectant purposes by almost any kind of mill, however crude; but ordinary plaster mills are perhaps best adapted to the work. In the absence of a mill of any kind, it may be reduced to powder by sprinkling upon it from one-fourth to one-half its weight of water. This partially slakes or hydrates the lime, and to a proportionate extent impairs some of its qualities as a disinfectant. But as, in common with charcoal, it possesses these qualities in so great excess over most other agents, it can afford this impairment and still be very effective, even in absorbing aqueous vapor. But besides, when saturated with water or thoroughly slaked, it is still in powder very useful, since its capacity for acid vapors, etc., is rather increased than diminished thereby. It follows from this that as whitewash it has little or no effect upon the aqueous vapor in the air, and its action on the gases which the air contains is here entirely independent of the absorption of the aqueous vapor. But the extended surfaces to which it is usually applied so increase the contact from a given quantity of lime, that it is probable that four ounces of lime spread as whitewash upon the walls of a chamber would abstract more carbonic acid from the air in a given time than a pound of the same lime in powder contained in a shallow box upon the floor. To sum up, therefore, it may be confidently asserted that lime as a powder, to be strewn over dirty, damp places, or upon the surface of the contents of privy sinks and cesspools, or for use in water-closets, garbage receptacles, etc.; in connexion with charcoal or alone; and in the form of whitewash to be spread over broad surfaces, including floors, gutters, alleyways, etc., and especially when this is frequently repeated, is a most efficacious and important disinfectant, if not the best of all such.

Freshly prepared lime and charcoal in the proportion of about two parts lime and one part charcoal, ground together into coarse powder, and the powder at once securely packed in barrels for use, could probably be obtained for about three dollars per barrel in large quantities; and such a powder would fulfil all the indications to the use of both agents, and would constitute as good a general disinfectant for all the various uses in the form of dry powder, as could be produced in the present state of knowledge; and if the community would accept the accumulated evidence of character, and settle down upon the use of this which everybody could prepare and sell cheaply as a common merchandise, the greatest general good attainable would be likely to result. Such a compound might be appropriately called "Calx Disinfecting Powder," or briefly, "Calx Powder," and be sold by pharmaceutists in arbitrary packages or by the pound at a low charge. This, with the common "chloride of lime," would then be generally available, and would subserve all the popular ends.

In many cases common recently calcined plaster of Paris, or "plaster," as it is technically called, forms a good disinfectant, acting however wholly as an absorbent. Mixed with the contents, or with the surface contents of privy sinks, cesspools, etc., it solidifies them by abstracting the water, and "setting" as it is termed—thus in a measure arresting the processes, and fixing the effluvia. Mixed quickly into a thin paste and quickly applied to cracks and crevices about the covers of cesspools and other sources of offensive effluvia; and applied thus as a cement or plaster for sealing up sinks, cesspools, etc., either after having been emptied, or to secure them against doing harm during weather, or under circumstances which prevent their being emptied or cleaned, this often subserves very useful and important purposes, setting as it does into a hard cement.

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PERFORATING DISEASE OF THE FOOT.

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I DESIRE to draw the attention of the profession to a disease to which I can find no reference in our English or American literature. In France there have been a few cases reported, and a summary of what is known upon the subject has been given to the profession in a brochure by A. Delsol.

I will first quote a case or two from the brochure mentioned, and then give the author's views as to their nature, pathology, and treatment; hoping that our American surgeons may have met with other examples, the particulars of which may throw some light upon this curious malady.

J. B., aged 55 years, good constitution, entered the Beaujon Hospital Sept. 19, 1863. Eight months before admission an ulcer appeared on the sole of his right foot, over the prominence of the first metatarsal bone, caused, he thought, by a peg projecting from his boot. To this various dressings were applied without success, until at length, unable to walk, he entered the hospital.

The foot presented the following appearances: At the ball of the great toe there was an ulcer about half an inch in diameter, surrounded by a wall of epidermis, very much thickened and with edges clean cut as if punched out. The bottom of the ulcer was composed of a blackish and fissured semi-fluid substance, permitting a view of a reddish villous tissue beneath, from which a slight sero-purulent secretion issued. The probe passed readily through this tissue, reaching the head of the metatarsal bone, which was found to be carious. The foot exhaled a strong and peculiar odor.

In spite of treatment, the foot became worse, phlegmonous inflammation set in, and abscesses formed at different points, with infiltration of pus among the tendons; so that, despairing of cure, amputation of the leg through the middle third was performed on the 26th of November. The patient succumbed on the tenth day.

Autopsy.—The various viscera were free from organic disease, with the exception of small points of calcification in the aorta. There were also very large fibrinous clots in the right cavities of the heart, extending into the pulmonary artery, together with hypostatic congestion of the lungs. An examination of the foot revealed extensive purulent infiltration, with sinuses leading down to the metatarsal bones. There was also *calcification* of the posterior tibial, and external and internal plantar arteries.

J. S., aged 50 years, entered the Beaujon Hospital on the 4th Dec., 1863, with a disease similar to that of the last

patient, but affecting both feet. The disease had appeared four months previously, on the left foot; an ulcer forming on the sole of the foot near the head of the fifth metatarsal bone. Two weeks later, an ulcer appeared on right foot near the great toe. These healed in about six weeks. The patient resumed his occupation, but was soon compelled to desist in consequence of a return of the affection. From that time until his entrance into the hospital (about two months), the ulcers showed no tendency to heal.

They presented appearances similar to those in the first patient, except that the disease was not so far advanced, insomuch as, although the ligaments of the metatarso-phalangeal articulation were exposed, they were not perforated, and there was no caries of the bones. Poultices were ordered Dec. 10th; under the influence of the cataplasms, the thickened epidermis was softened and easily detached, and injections of tr. iodine and water were employed. Dec. 20.—The ulcer of the right foot is healed; that of the left improving.

January 17, 1864, the ulcer of the left foot has been healed some days. The patient can walk without inconvenience. Discharged.

The other cases cited, about a dozen in number, four of which were observed by Dr. Delsol, presented a remarkable uniformity of course; usually there first appeared at the root of one of the toes a thickening of the epidermis like a corn, but more extensive and painless. In the centre of this an ulcer appeared, penetrating the tissues, until the periosteum was reached, and the bone denuded. If appropriate treatment were commenced at this stage, the ulcers generally healed in a few weeks; but if the disease pursued its course unchecked, the ulcer penetrated the joint, destroying the articulation; and new ulcers and fistulæ formed, leading down to the other metatarsal bones. Some of the patients finally submitted to amputation of the affected member.

Three cases afforded an opportunity for dissection of the parts—two after death, and one after amputation. In these cases, besides the appearances presented by the ulcers, there was one constant lesion, namely: calific degeneration of the arteries of the foot. The ages of the patients were respectively forty, fifty-five, and fifty-nine years. This coincidence is *strange*, but the Doctor neglects to state whether an examination was made of the arteries of the upper extremities, or of the brain; and if so, what was the result. In two or three cases there were points of commencing gangrene.

The nature of the disease is obscure. Is it a purely local disease, depending upon a local condition of the nutrient vessels; or is it another form of senile gangrene to which all are liable in whom the arteries generally have undergone atheromatous changes; or is it a manifestation of syphilis? The two first questions I cannot answer; respecting the last, it is stated that anti-syphilitic treatment was tried in several cases without benefit.

The treatment adopted in most of the cases that terminated favorably, consisted in rest, poultices to remove the thickened epidermis, and injections of tr. iodine and water.

Monument to Commemorate the Discovery of the Anæsthetic Properties of Ether.—A wealthy citizen of Boston has placed a liberal sum of money at the disposal of Messrs. Ware & Van Brunt, architects, to commemorate the great medical discovery of modern times. It is intended as an expression of thanksgiving, as it were, for the great alleviation which it has brought to human suffering, and the monument which these gentlemen have designed is intended to convey this in a poetic form. The monument is to stand in the public garden facing Marlborough street.

REMARKS ON DISINFECTANTS.

By CHARLES A LEE, M.D.

In a Letter to Dr. Marsden, of Quebec.

The only true disenfectants are perfect ventilation and cleanliness. No widespread epidemic can exist without localizing causes of disease. These localizing causes are overcrowding, deficient sewerage and drainage, organic matters, whether vegetable or animal, liable to decomposition, great humidity, impurity of drinking-water, want of personal cleanliness; in short, whatever contaminates the air, water, or food. These must be zealously guarded against at all times, especially when there is danger from any infectious or contagious disease. It is the duty of all communities to secure, as far as possible, personal, domestic, and civic cleanliness and purification, by the prevention or removal of all these local causes of disease. If this be done, no special disinfectants will be needed. Great injury may result from placing too great reliance upon them.

It is necessary, also, to remember that an offensive odor and a *virus*, a poisonous miasm, have no necessary relation. The poison of malaria, for example, is not accompanied by any offensive smell; while, on the other hand, we know that the most offensive odors, as those disengaged from putrefying animal matters, do not themselves necesarily act as poisons. But let the choleraic, or any other specific virus, be introduced in localities where such effluvia exist; then these latter furnish the pabula for their indefinite multiplication and extension. They furnish the fermenting material or mass on which the fermenting virus of disease operates.

It is a necessary inference from this fact that chemical or other agents which are capable of removing the offensive odors resulting from animal and vegetable decomposition, may be inert as regards the poisonous miasm or virus on which infectious diseases, as cholera, depend for their germinating principle. A *deodorizing* agent is not therefore necessarily a *true disinfectant.* In a general sense, a *disinfectant* then may be considered as an agent for removing the causes of infection. It matters not, practically, whether it destroys the specific *virus* of disease, by a chemical, decomposing, oxidizing, or deoxidizing action; or renders it inert by fixation, as by the use of an absorbent; or by arresting those putrefactive changes and chemical actions, by which the poison is rendered capable of multiplication and extension. Cholera is manifestly self-generating, under certain favoring conditions, as the presence of organic matter in the atmosphere, excess of moisture, a certain temperature, etc.; and if these conditions can be prevented or obviated, the choleraic cell, germ, or virus, will not fructify, and the disease will become extinct, or not extend, for want of its proper *nidus or pabulum. It cannot be denied that we have such agents, and, therefore, that cholera is, to some extent at least, under our control.* If these views are correct, then at least three different classes of agents may be included under the general term *disinfectant;* but the term, as I have already intimated, is not a good one, for it does not express the exact or entire truth. Some of our disinfecting compounds probably act in all of these different ways; and it is owing to this circumstance that they are more efficient and reliable than any single substance. Several of the more important of these will be mentioned hereafter. Disinfectants, then, naturally arrange themselves under three different heads or classes: viz.

1. Chemical disinfectants. 2. Absorbents. 3. Antiseptics.

We have, I think, sufficient evidence to render it highly probable, at least, that *chlorine gas* and the *alkaline chlorides of lime and soda; the mineral acids*, and their gases; *charcoal, quicklime, caustic alkalies*, the *manganates and permanganates, the sulphites and hypersulphites*, etc., and positively *dry heat* above 250° F., may be called *true disinfectants*, as they have the power of destroying the infectious virus or agent. I know this has been denied; but you will observe that the evidence on which the denial is founded is entirely of a *negative* character, while the affirmative seems to be supported by positive facts. We may admit that they have sometimes, and even frequently failed, just as quarantine has failed; but in these cases it would not be difficult to show that the failure is not due to any want of efficacy in the measures employed, but to the very partial and imperfect manner in which they have been carried out. Any proposition whatever in medicine, however absurd, can be proved in the same way, and no one knows better than yourself the numerous sources of fallacy in reasoning of this kind. By the same line of argument precisely, we can prove the non-contagiousness of measles, scarlatina, yellow fever, and small-pox, and even the inefficacy of vaccine as a preventive of the latter. Here, as in all the practical applications of our art, we must aim to imitate, as far and as clearly as possible, the sanitary processes of nature, whose great purifying and hygienic operations are chiefly *oxidation, diffusion, and dilution.* All these we can imitate to a certain extent; but there are others, as temperature, winds, the fall of rain, the electrical, magnetic, and hygrometric conditions of the atmosphere, etc., which are beyond our reach. *Thorough ventilation* is doubtless the most important hygienic and disinfectant agency we can command, and subsidiary to it is *chemical action;* which, even at the best, must be partial and imperfect, and consequently uncertain. Doubtless, if it can be brought directly to bear upon the poison of any infectious disease, it will destroy it; the difficulty is how to effect this. The most effectual means of purifying the air, independent of ventilation and the removal of organic matters, is the evolution of certain gases, such as chlorine, hyponitrous, nitrous, and sulphurous: of these the nitrous acid is believed to be the most powerful; but it is useful, and perhaps expedient, to employ all three alternately, or even together. They are never to be regarded in any other light, however, than as auxiliary to ventilation, etc.; if they supersede them, as above stated, they would prove more injurious than beneficial. *Chlorine* stands unrivalled, however, for its power of destroying putrid odors and checking putrefaction; although its irritating and irrespirable properties render it very objectionable and even inadmissible in large quantity in inhabited dwellings and wards of hospitals. It acts instantly on all organic vapors and gases, partly by oxidation, and partly by its affinity for hydrogen; decomposing readily sulphuretted hydrogen, ammonia, hydrosulphuret of ammonia, phosphuretted hydrogen, and other fetid or offensive effluvia and vapors; and as the virus of infection must unquestionably be some animal organic compound, analogy must lead us to believe that chlorine will decompose it as readily as other bodies of a similar kind. That it rapidly destroys organic matter is evident from its power in bleaching organic pigments, and destroying organic odors. In all the experiments made with chlorine, etc., for the arrest of cholera in former epidemics of this disease in Russia, Austria, Hungary, Great Britain, France, etc., it is worthy of note that in none of the trials was chlorine or any other disinfectant added to the stools, but they were merely diffused in the air. Under such circumstances a failure was, of course, to be expected. No fact has been more fully established by careful observations, made in every quarter of the world, during the last forty years, than the contagious nature of cholera evacuations; and that, as Greenhow of London remarks, "an atmosphere impregnated with the products of *fermenting excrements*, is at once the most obvious and most constant concomitant of cholera;" and Dr. E. Harris, late Health Physician of New York, states that he "has seen abundant evidence of the infectious agency of the rice-water evacuations;" and that in ten different epidemics of cholera at quarantine, "the disease was introduced by cholera patients from ships, when there was no cholera upon the Atlantic coast." If, then, the infection resides in, or is generated from cholera stools, to these should disinfectants be immediately added, or rather placed in the vessels receiving the discharges; and we should hardly expect any such agents to be entirely effectual when the wards of a hospital, private dwellings, or the atmosphere of any given locality, is impregnated with the cholera poison. But we are not without considerable proof that chlorine fumigations may be effectual in preventing the spread of cholera in a hospital. Observations made during 1854 in the different general hospitals of Paris, show that the greatest number of cases of cholera occurred within those wards into which the greatest number of cholera patients were brought from without, except in M. Monat's wards, where chlorine fumigations were used; and this surgeon states that "there was almost complete immunity from cholera contagion in his wards from the moment of the permanent instituting of chlorine fumigations in them." At the hospital Gros-Caillou, where many cholera patients were admitted, and where the dejections and vomited matters were disinfected, not a single case of the disease occurred. Numerous instances of a similar kind could be given, but it is unnecessary. I may, however, refer you to the very decisive experiments in the two large prisons at Munich, in one of which very strict and energetic measures were adopted, during the prevalence of the disease, to disinfect the discharges of all the prisoners and inmates by chloride of lime, etc., and the result was that only one case occurred among 500 inmates; while in the other institution, in which no means whatever were adopted of disinfecting the discharges, fifteen per cent. of the inmates were attacked. The preventive measures employed were in accordance with the German theory that the cholera poison results from the decomposition and fermentation of cholera discharges, under an elevation of temperature of at least 50° Fahrenheit. In regard to the *mode of employment:* One pound of *chloride of lime*, or *chloride of soda*, may be added to three gallons of water, of which a few ounces should be placed in the vessel receiving the evacuations, whether by vomiting or stool. *Chlorine gas* may be given off from chloride of lime, or of soda, slowly, by moistening them with water, and placing them in shallow vessels; or, when desirable, may be rapidly developed by pouring four parts by weight of strong hydrochloric acid on one part of powdered binoxide of manganese; or by mixing four parts of common salt and one part binoxide of manganese with two parts, by weight, of sulphuric acid and two of water, and heat gently; or, a better plan still, is to take two tablespoonfuls of common salt, two teaspoonfuls of red lead, half a wine-glassful of sulphuric acid, and a quart of water; mix the salt and lead with the water, stir well, and add the sulphuric acid gradually. Chlorine is evolved and absorbed by teh water, from which it is slowly given out; or it may be evolved more rapidly into the atmosphere by the application of heat. It may be kept in a jar or stoppered bottle, left open as occasion may require.

Nitrous Acid.—The action of nitrous acid on organic matter is very great and rapid; removing the smell of the dead-house sooner than any other gas. The principal objection to its use is its irritating properties when inhaled; therefore when used, the rooms should either be cleared, or it should be disengaged slowly, which may be done by diluting the nitric acid employed. The ordinary method is, to place nitrate of potash in sulphuric acid; or more simply, by putting a bit of copper in nitric acid and a little water.

Sulphurous Acid.—This is most easily evolved by burning sulphur. This, like nitrous acid, acts powerfully on organic matter by deoxidation; completely destroying miasms and animal contagions. It is, however, like the former, irrespirable, unless in very minute quantities. Where these gases are employed, it is nevertheless necessary to add chloride of lime, or some other good disinfectant, to the evacuations.

These agents are believed to be not only antiseptic and deodorizant, but to break up and destroy decomposing matters and the matter of contagion by converting them into their ultimate gaseous products, and hence may be called *true disinfectants.* If they merely prevented or retarded putrefaction, they would, like *carbolic acid* and its compounds, be simply antiseptic. The chloride of soda has one advantage over chloride of lime, viz. that by the process of disinfection it becomes chloride of sodium, which is not a deliquescent salt; whereas the chloride of calcium, generated by chloride of lime, attracts water from the atmosphere, and thereby furnishes one of the conditions (viz. moisture) necessary to the putrefactive process. Still, for mere disinfection, chloride of lime serves equally well. In the Crimean war, quicklime, chloride of lime, and charcoal, were the chief disinfectants used.

Charcoal.—This substance is supposed by many to deserve to rank among the true disinfectants. Presenting as it does an immense surface to the air, one cubic inch of it equalling one hundred square feet of surface, it separates and absorbs oxygen from the atmosphere, and oxydizes rapidly almost every substance capable of it. From its great power in this respect, it must virtually and actually destroy all animal contagions and organic emanations in disease.

Thus, *charcoal-filters* are extensively and most successfully employed in England, to disinfect the air from sewers and cesspools, etc., having a strong affinity for all the compounds of hydrogen. To a certain extent, charcoal acts on the principle of *fixation* and as an *antiseptic*, absorbing about fifteen per cent. of its own weight of gases and moisture from the atmosphere in twenty-four hours; also ninety per cent. of its own volume of ammonia, and fifty-five times its volume of sulphuretted hydrogen gas; proving alike deodorant and disinfectant, from its property of correcting all kinds of putrefaction. Besides, it is one of the cheapest articles that can be used for this purpose. The British "Sanitary Commission" in the Crimea recommended as a powerful disinfectant, a mixture of one part peat charcoal finely ground, with one of quicklime and four parts of sand or gravel.

A highly useful disinfectant ("*Thompson's Disinfectant*") has been lately introduced, consisting of fresh and finely ground *charcoal, quicklime, ashes,* and *salt,* in the proportion of six parts charcoal to two of lime, and smaller amounts of the other ingredients. This acts as a powerful, and perhaps true disinfectant, by means of the chlorine which is slowly given off, as well as by the oxydizing power of the lime and charcoal; and while nearly or quite equal to chloride of lime, it may be furnished at half the cost or less, and is free from the objection of possessing highly irritant properties on inhalation. This compound is also highly absorbent and antiseptic. For disinfecting sewers, drains, privies, cesspools, etc., it can be confidently recommended.

Quicklime, from its highly oxydizing power, has the property of rapidly destroying all organic substances, especially those of animal origin, and hence proves disinfectant. It unites with great avidity, with sulphuretted and phosphuretted effluvia and moisture, furnishing a chemical base for many acids; setting free, however, ammoniacal gases. It is also one of the best antiseptics and deodorizers. For these purposes, it should be used dry and unslaked; but where it is employed for combining with carbonic acid gas, it must of course be mixed with water, or reduced to a creamy hydrate. Distributed in shallow vessels, it is thus most usefully employed in overcrowded wards, barracks, prisons, or tenement houses, etc. As a temporary expedient, it answers an excellent purpose sprinkled freely in sewers, drains, gutters, privies, cesspools, etc.

The second class of disinfectants includes those agents which act chiefly by absorption, as earth, fuller's earth, porous clay, sulphate of lime, etc., and which exert no strong chemical action.

The sulphate of lime and *sulphite of lime*, etc., thus by *fixation* answer the purpose of disinfectants. All ammoniacal and sulphuretted effluvia, as well as the hydrogenous gases, are readily absorbed by them, thus serving as deodorizers. They also serve as useful vehicles for some of the more powerful and expensive antiseptics, as *carbolic acid, charcoal,* the chlorides, hyposulphites, and metallic salts. For example, "McDougall's disinfectant," or "powder," consists of carbolic acid, sulphite of lime, magnesia, and porous silicate of alumina; the "disinfecting powder of Messrs. Corné & Demeaux" consists of ninety-four per cent. finely ground gypsum, and five or six per cent. of the heavy oil of coal tar." The smell, however, of carbolic acid renders it objectionable in the wards of hospitals and in inhabited dwellings.

The third class of disinfectants, so-called, includes the *metallic salts;* these are useful deodorizers, reacting on sulphuretted hydrogen and the hydrosulphurets; forming insoluble, inodorous, metallic sulphurets; uniting also with animal matters, and checking putrefaction. They may very properly be said to act by *fixation*, and thus prove indirectly disinfectant.

The most important of these are the following, viz:—

1. "*Ledoyen's Disinfecting Fluid*"—a solution of nitrate of lead in the proportion of one drachm of the salt to a fluid ounce of water. But the acetate or subacetate of lead will answer equally as well as the nitrate.

2. "*Burnett's Disinfecting Liquid*"—a solution of chloride of zinc. This has very little power of decomposing the compounds of hydrogen.

3. "*Ellerman's Deodorizing Fluid*"—a solution of sulphate of copper.

4. *The Salts of Iron,* especially the protosulphate and the proto-chloride, are among the most useful articles of this class; as the former is also one of the cheapest. Their control over ammoniacal, sulphuretted, and other noxious effluvia is very prompt and striking. As they are very soluble and convenient, they may be advantageously used in many ways separately, or in combination with other deodorizing materials, especially for placing in vessels for receiving choleraic evacuations by vomiting or stool. Also to add to privies, cesspools, etc. "*The Ridgewood Disinfectant*" consists of *proto-chloride of iron, carbolic acid,* and *fuller's earth.*

5. *The Permanganate of Potassa.*—This is regarded by many as the most efficient salt of this class, and doubtless has greater chemical power than any of the above mentioned. It is consequently a more

decided disinfectant and deodorizer, being more expensive it is, however, less used. It is very soluble and convenient of application, especially for t pical purposes in hospital surgical practice. To purify contaminated apartments, evaporating cloths saturated with a strong solution o' the permanganate, may be employed. Our army surgeons, who have used it during the late war, all bear strong testimony to its powerful oxydizing and antisept'c effects upon organic and putrescent matters; being in fact one of the most sensitive tests of the presence of organic matter. One of its most useful applications is, the purification of water from organic matter, dropping minute quantities of it into the water, *until the tinge of the permanganate begins to appear.* On shaking well, instant deodorization takes place; and thus water offensive to the smell from the presence of decaying animal and vegetable matters, becomes at once tasteless, colorless, and palatable, while the amount of permanganate, necessary for this purpose, only renders the water therapeutically tonic, and wholly unobjectionable.

"*Conby's Disinfectant*," "*Darby's Fluid*," etc., and the different preparations of "*Ozonized Water*," are all solutions of permanganates.

6. *Iodine and Bromine, and their Compounds.*—These are all powerfully antiseptic, whether used topically or diffusively. Their strong fumes being irritating and irrespirable, they are to be very cautiously used in this form. For fumigating wards of hospitals, etc., vessels containing a solution of pure bromine, or the bromide of potassa, may be distributed at different points. It does not come within the objects of this letter to speak of their surgical uses and applications.

7. *Coal-tar Compounds—Carbolates*.—These substances have come into very extensive use recently, as antiseptics as well as deodorizers. Their offensive smell renders them objectionable, to some extent, in inhabited dwellings, wards of hospitals, etc.; but they are invaluable for disinfecting sewers, drains, privies, cesspools, stables, etc. *Coal-tar* is generally obtainable at gas manufactories, being one of the chief refuse materials, and is not expensive. We have no agents, perhaps, which will more speedily arrest the decomposition of organic matters, and remove offensive effluvia, than carbolic acid and its compounds. When used for chamber vessels, close-stools, etc., a very good preparation is made by combining equal parts of *coal-tar*, *alcohol*, and *soft-soap*; a small quantity suffices.

Heat.—It is very fortunate that we have so certain, prompt, and effectual a disinfectant as *dry heat*. It is now more than thirty years since Dr. Henry, of Manchester, England, proved that the infectious matters of diseases may be dissipated or destroyed by a temperature not below 200° F.; and he therefore suggested that infected clothing, goods, etc., may be disinfected on this principle. This has been successfully carried out in numerous instances since, in regard to the infectious virus of scarlatina, plague, typhus, yellow fever, cholera, etc.; and it is found that neither the texture nor color of fine-goods and other articles of clothing is at all injured by a temperature of 250° F. Rooms, ovens, etc., may be easily prepared to be heated by hot air, conducted through pipes, at all the principal ports, where all the suspicious clothing, goods, etc., might be thus readily disinfected.

1. The principal conclusions, then, at which we arrive are, that there are no safe substitutes for free ventilation and cleanliness, whether as regards the wards of hospitals, the rooms of private dwellings, or the streets and lanes, etc., of towns and cities.

2. The compounds of *chlorine* are among the most powerful agents known as true disinfectants, antiseptics, and deodorizers.

3. Solutions of some of the salts of *zinc*, *lead*, *copper*, or *iron*, are perfect deodorizers and antiseptics, and may be placed with advantage in all vessels receiving the evacuations of cholera patients.

4. A compound power of *sulphate of lime*, *powdered charcoal*, *salt*, and *wood-ashes*, is the best article for ordinary use in the destruction and absorption (fixation) of all noxious effluvia and poisonous gases; and may be used with great benefit in streets, gutters, sewers, drains, privies cesspools, stables, water-closets, and wherever organic matter is exposed to decomposition. This is cheaper than any other antiseptic or disinfectant, and equally efficacious. This also answers a good purpose for the deodorization of solid bodies, which are to be covered with it; a mixture of some of the salts of *zinc* or *iron*, mixed with *sulphate of lime* or *saw dust*, answers perhaps equally well, though more expensive. *Equal parts of quicklime and charcoal* also answer for all common purposes of disinfectants.

5. Some of the above substances should be daily added to all sinks, privies, cesspools, water-closets, etc., in places where cholera prevails.

6. To disinfect articles of clothing, goods, etc., which have been exposed to cholera poison, *dry heat above 200° F.* is the only safe and perfect method. Conveniences for carrying out this plan should be in readiness at all our ports, as well as places where cholera prevails.

7. As *ozone* has the power of rapidly converting the products of animal and vegetable decomposition into innocuous compounds, it is an important desideratum to ascertain the best mode of developing this powerful agent in the sick-room, wards of hospitals, etc. Further experiments are needed on this subject. The common method of exposing a piece of phosphorus in a room to be disinfected, is the process generally adopted.

In submitting these remarks on disinfectants, I should do injustice to myself and the cause of science, did I not again caution against placing too much reliance upon them against the introduction or spread of cholera, or any other infectious disease. They are only to be regarded as subsidiary to the great sanitary measures of free ventilation, purification, and cleansing by water, etc., sewerage and draining, etc. No substances liable to putrefaction and decay, must find lodgment in houses, lanes, alleys, streets, workshops, or any other place; and if this were thoroughly done, no disinfectants would of course ever have to be used. There is no doubt that great injury has resulted to the health of both communities and armies from too great confidence being reposed in disinfecting measures. But in large cities, as well as camps and hospitals, it is next to impossible to remove all organic matters so thoroughly or so promptly as to prevent the escape of noxious and offensive effluvia. Hence, disinfectants are a necessity, and probably always will be; and we must try and learn which are the most reliable, and, indeed, if there are any deserving the name.

German Hospital in Newark, N. J.—The Germans in Newark, N. J., are inaugurating measures for the establishment of a hospital in that city for the accommodation of their countrymen.

A Fish Epidemic is reported at Richmond, Va Large numbers of all sizes float on the water, and when taken out appear bloated, and die in a few minutes.

Original Lectures.

ON CHOLERA.

By A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.

Lecture IV. Part II.

The Theories in regard to the Origin and Spread of Cholera. (Continued.)

If I were to select from all the published reports the statement which seemed to prove most conclusively the contagious character of cholera, I should take the one I am now about to read to you. The facts are recorded by Baly and Gull (p. 166), and relate to a very large school for poor children in the immediate neighborhood of London, called the Tooting School, from its locality. In winter, in December, 1848, cholera appeared there in unusual severity. It was so violent that the governors of the institution found it necessary to break up the school, and send the children to the parishes whence they came. The result was as follows:—Forty-five of these children were sent to Bellevue House Pauper Asylum, Margate, on 6th and 7th of January. On the 8th one of them died, and immediately several of the inmates who had not been to Tooting were attacked; two died on the 11th and one on the 23d. One hundred and fifty-five of the children were sent to the Royal Free Hospital on the 5th of January. Four of these died between 6th and 8th; five of the attendants were attacked, and two died between the 13th and 20th. Nine died at St. Pancras Workhouse between 6th and 20th January. A few days after their arrival a person residing in another part of the building was attacked and died. Some of the children were temporarily placed in the Park House, Hackney; and four of them died between the 10th and last of the month. A young woman brought from Islington to nurse them was attacked, and died on January 14. One of the children died in a house in Marylebone District, and two in Kensington Workhouse. There the disease did not spread. One of the attendants at the Royal Free Hospital died at Holborn Union Workhouse, and the disease at the same time broke out in that establishment. The cholera was not prevailing in any of these institutions, or indeed in the districts in which they were situated, at the time the infected persons were received, although it was epidemic in other parts of London. It is to be remarked however, that in the Holborn Union one man died of cholera on the 13th, while he who had been with the cholera at the Royal Free Hospital died on the 14th. They fell sick at about the same time, and their beds were opposite and near each other. In these five instances cholera seems to have been carried from one institution to another by the sick. But there were other institutions which received portions of the Tooting children, and were not similarly visited.

Let me give you another narrative that would be selected as proof of the contagious character of cholera. It it reported by Dr. Ohr, of Maryland (*American Journal of Medical Science*, January, 1854), and relates to the prevalence of cholera in the town of Cumberland in the year 1853.

The first case which occurred in Cumberland was in the person of a boatman on the Chesapeake and Ohio Canal, about the middle of July. He had come from Williamsport, where the cholera was raging with considerable violence. He lay out on the "green," and died the next morning. The next case occurred about two weeks later, also imported. The subject was a boatman from Williamsport. He lay sick in a green-grocery kept by a man named Hall; he recovered. On the 6th of August, six or seven days from the time of this boatman's arrival, a little girl living with Hall died. Hall died on the 7th. On the same day a boat-builder named Cooter was taken with the disease, and died in nine hours. He had been at Hall's the day before. Meantime several deaths had occurred in the immediate neighborhood of Hall's grocery. On the 8th, Kennedy and several of his family were attacked. They lived fifty yards from Hall's, and had been there. On the night of the 8th, Hazel Beall, a watchman, was seized; he had been at Hall's. On the 12th Mrs. Beall was attacked; Beall's house was about a mile from Hall's, and near Cooter's. Four of Beall's children were attacked successively. Some of the children were taken to Mrs. Simpkins's, an adjoining house. Mrs. Simpkins and her child died. On the 10th or 11th Mrs. Nelson Beall went to the house of Hazel Beall, who was still living, and assisted in nursing. She was attacked, went home, and died on the 13th. Her husband and two children were attacked, and died on the 19th. Nelson Beall lived about a mile south-east of Hazel Beall, and out of town. No person in the neighborhood of Nelson Beall's entered his house, and none suffered from the disease. On the 18th Sullivan was attacked; he had been a day and night at Hazel Beall's. He lived three-quarters of a mile east of Hall's, and a greater distance south-east from Beall's. His mother, and three children of his brother, were attacked successively. No other person in that neighborhood had the disease except two mulatto girls named Cole, who had assisted in taking care of this family. From the 6th to the 18th a number of deaths occurred along Green street, in which was Hall's grocery; some in the different parts of Mechanic street in which Cooter and Hazel Beall lived. Some in other places, said to have been from cholera morbus. On the 19th there were 13 victims. The town became alarmed; many (3000) fled, and it became impossible to trace the communicable features of the disease further. Hall's grocery was a long low old one-story frame building, the base about three feet below the pavement. It was kept for the retail of cakes, candy, liquors, potatoes, cabbage, codfish, etc. Much of the codfish was rotten; it was a place for boatmen, loafers white and black, and of strong odors. It stood on the corner of Green street, where Will's Creek joins the Potomac, "as favorable a place for the incubation of pestilence as could be desired." The place had been healthy till the 1st of August, though the air had been dry, hot, and stagnant.

Here is a history that certainly countenances the idea of communication from person to person.

The following account is often quoted to enforce the doctrine of contagion. It was written by Dr. Keckerley, and runs thus:—

The Brig Amelia sailed from New York on the 19th October, 1832, bound for New Orleans with over 100 passengers, all but three or four in the steerage. After being at sea six days, cholera broke out in the steerage. The voyage was one of extreme dangers and excitements; and finally the brig was run ashore to save the lives of passengers and crew, on Folly Island, near Charleston, S. C. This was on the 31st of October, six days after the cholera had appeared in the vessel. Twenty-four persons had died and several were still sick. The passengers were landed, and being in great want and distress, relief was sent from Charleston.

A boat's crew of wreckers was sent down to save the vessel and cargo. On their return one of them was attacked with cholera and died in Elliot street. This man "was visited by hundreds of persons," none of

whom had the disease. The boat's crew were ordered back to the island. Two fell sick; and one died on the way down. The wreckers were very intemperate; and the man who died in Elliot street, besides living or being attacked in an insalubrious locality and being intemperate, had slept in wet clothes.

More wreckers were sent down. A guard of eighteen men was set over the infected persons. The guard soon returned to a distant part of the island, dissatisfied and disobedient.

Four negroes were the only persons left on the island. Of these four, three died, two adults and one child. Of the guard, every one except the commanding officer, it was reported, had choleraic symptoms; nine were reported as severely attacked; one died. Of the wreckers, eight died. On the 8th of November the wreck was burned.

On the 10th the nurse who attended the wrecker in Elliot street, the week before, died. After the 17th no more cases were reported, the weather having become remarkably cold. On the 19th the healthy passengers left by another vessel; and though twice wrecked on the voyage, no more cholera appeared among them.

Dr. Keckerley thinks that there is no fact in this narrative favoring the idea of contagion. He says that in Charleston during the month of July, sixty-eight cases of cholera-morbus were reported, by less than twenty-eight physicians. Affections of the bowels continued prevalent till winter; several cases occurred that very much resembled Asiatic cholera. He believes that the wreckers were predisposed to cholera; and that their bad habits and exposure, and especially breathing the bad air of the vessel, charged, as he believes, with idio-miasm, were the exciting cause of the disease. Among the guard and negroes left on the island he supposes the same predisposition existed, and that alarm and military disorder were the exciting cause in these.

The physicians, three in number, sent down from Charleston suffered from nothing but fatigue.

The following report has been claimed as supporting the doctrine of contagion:

In Columbia, Pa., 1854, the cholera appeared in a single house, and several persons died of it. This house was destroyed by the authorities; no other cases occurred for some weeks, though there was a tendency to diarrhœa among the inhabitants, and cathartic medicines were unusually active. At length, on the 6th of September, two German emigrants were left at the dépôt sick with cholera, one of whom died. The vessel in which they had crossed the Atlantic had cholera on board. On the night of the 8th, two cases occurred among the inhabitants, both in unhealthy men, one of whom had had diarrhœa for a fortnight. "At midnight," says Dr. Smith, "it made its appearance in almost every section of the town, and at daylight there were thirty cases, all of which proved fatal during the 9th. Of those who fell under my care, I noticed many whom I had seen in the room with the German emigrants during their illness. Most, if not all, had diarrhœa the day previous." The town was on a bad site, and in a bad sanitary state. Intermittent and remittent fever was prevailing at the time.

Dr. Jackson states that a gentleman from Bainbridge, seventeen miles distant, visited Columbia while the cholera was prevailing, returned home, and died of it. His family fled; a friend who took care of him, contracted the disease, as did another who assisted at the burial. Neither of these two had been at Columbia or any other place where cholera was prevailing. Hundreds, Dr. Jackson adds, left Columbia at the height of the epidemic, and some had the disease in their place of refuge; but so far as could be learned, in only one or two cases did it appear to be communicated.

Of the physicians, one died; he was attacked on the first day of the epidemic, and died on the second. One nurse was attacked. All the other physicians, the officers of the Sanitary Committee, and nurses in private houses and in the town-hall, escaped.

Such are the facts and cases that are cited in support of the theory of contagion. Now, on the other hand, I will give you some statements and reports that seem to be altogether incompatible with the idea that the disease is communicable by personal contagion.

It will occur to your own reflections, that if cholera was contagious in Cumberland or in Columbia, it will be contagious everywhere. Typhus is contagious in dwellings and in hospitals, in village and town, in summer and in winter. If the term "contingent contagion" means anything, it can only be used in relation to the state of the individual—his power to resist contagion. The contagious principle is always the same; contingency cannot be predicated of it; nor is it apposite to say that one affirmative fact outweighs scores of negative ones, for the facts in this case are the occurrences of cholera as described. These are not doubted. The question at issue is, will these occurrences admit of any other explanation than the supposed contagion? If, then, it can be shown that in the broad study of the disease it is not spread directly by emanations from the sick, then the occurrences at Cumberland must have some other explanation, whether we have knowledge enough to make that explanation or not.

Dr. Morris states that in the Massachusetts State Prison, at midnight, July 27th, 1854, he was called to see a colored convict suffering from a choleraic attack. *He had been in solitary confinement for seven years.* Before Dr. Morris could get to bed again, he was called to four other prisoners, who had been attacked in different parts of the prison. During the next day, the succeeding night, and the following day, the cases multiplied; so that, in forty-eight hours, two hundred and five were more or less severely affected. The symptoms, Dr. Morris says, were "lividity of the lips, painful cramps, vomiting and purging, cold extremities, and in a few instances suppression of the urine." On the 27th of July, the day had been very hot, and by a sudden change the night was very cold.

A man who had been confined seven years in his cell, having no communication even with the prisoners in the institution, is the first to be seized. Suspicion was aroused that the food might be poisonous, but on examination it was found good and wholesome.

Dr. Trask gives the following account of the outbreak of cholera in the Westchester Poor-House, in 1849:

"Up to this time (the time of the outbreak), there had been no case of cholera, so far as I can learn, between this place (White Plains) and New York (twenty-eight miles), nor was there any evidence of its introduction from that city."

Suddenly, two men sleeping in beds almost adjoining, were seized with cramps, vomiting, and diarrhœa, after midnight, and before noon, both were dead. On the same day a female at the opposite end of the establishment was similarly attacked, and died in twenty-four hours. There were forty-seven cases, and twenty-seven deaths, among about one hundred and fifty inmates. He soon learned that diarrhœa had been prevailing in the establishment, and that most, if not all of those suddenly attacked had had this affection for some time.

Parallel instances could be multiplied indefinitely. The whole history of cholera seems to look to another cause than contagion for its origin. As it began in European towns, it was almost always preceded by

diarrhœa and colicky pains, and occasionally by cholera-morbus; and when at length it mad · its appearance, it often seized upon some person or persons who had not been out of town for a long time, between whom and infected places no connexion could be traced, living in a very unhealthy locality; and at very nearly the same time other persons were seized in similar negative relations to the outside disease, and who had had no communication with the person first attacked.

The settlement of the question can be somewhat aided by considering the history of hospitals, and the liability of nurses and physicians to the disease. Dr. Vanderveer gives an account of a little hospital of which he had charge in Franklin street, in this city, in 1854, where, it would seem, were assembled all the conditions necessary to give contagion force, if the disease is communicable in this way. He states that he had two wards, one above the other, the lower 25×35 feet, the upper, 25×30; that there were at times twenty-five patients in each of them; that the physicians and nurses slept in small adjoining rooms opening into the wards, and that the doors of their rooms were constantly open for ventilation; that the back yard, 20×30, inclosed by a wall twelve feet high, furnished room for the kitchen, water-closets, autopsy-room, wash-house; and a part of this space was reserved for the dead bodies, which were accumulated once to the number of ten, and till they became offensive. He says that the physicians made seventy-eight *post-mortem* examinations; that their hands, *bathed in the choleraic fluids, were often wounded*; that there were twenty physicians, nurses, and attendants, and that the only one of the twenty who had cholera, or any symptom of cholera, was a sedan-carrier of temperate habits, who resigned his place because his work was too hard, and five days after was brought to the hospital in a dying condition.

Here is a little pent-up place with water-closet, dead-house, and the dead piled up in coffins and exposed to the heat and sun, and shut in by a wall twelve feet high; the place full, the wards crowded, and the physicians and attendants, in effect, sleeping in the wards, and yet no one takes the disease. Histories of hospitals which teach the same lesson, few, however so emphatically, could be accumulated in our own country. From the European hospitals the same story comes. They do not all announce complete exemption of the physicians and attendants; but without any exception, the mortality is declared to be moderate—not exceeding what should be ascribed to the general liability, aided by fatigue and loss of sleep, and, on the part of nurses and attendants, often by intemperate habits. The physicians of cholera hospitals are rarely contagionists. The history of cholera hospitals does not sustain the doctrine of contagion; and here, if anywhere, contagion should be demonstrated. Out of almost countless reports that authorize these statements, I select the following table drawn up for the report of Drs. Gull and Baly, referring to the general hospitals of London in 1849.

Examine this Table attentively. Guy's Hospital did not admit persons attacked with cholera; yet one in 163 of its inmates, and one nurse to 490 patients, died of that disease. Five of these institutions admitted the disease, but confined the patients to particular wards. They had an aggregate of 1466 general patients, and 381 deaths from cholera. Multiplying the deaths by two, the usual hospital ratio between cases and deaths, the product, 762, will be about the number of cholera patients admitted. The deaths by cholera among other patients were one in 147, and among nurses one to 371 patients, including those admitted with cholera. Three hospitals, with an aggregate of 750 patients, received probably about 150 persons sick with cholera (deaths seventy-seven), and they were distributed among other patients. The deaths among these other patients were three, or one in 250; and of the nurses only one to 900 patients died.

Hospital.	*No. of Patients.*	*No. of Deaths among Patients admitted with Cholera.*	*No. of Deaths from Cholera among other Patients.*	*No. of Deaths by Cholera among Nurses.*	*How the Cholera Patients were distributed in the Hospital.*
Guy's Hospital.....	490		3	1	No Cholera patients admitted.
St. Bartholomew's.....	500	193	1	1	Cholera patients in special wards.
St. Thomas's Hospital....	430	66	6	3	" " " "
London Hospital.....	330	40	None.	None.	" " " "
University Hospital.....	110	31	1.	None.	" " " "
King's College Hospital...	96	46	2	2	" " " "
Middlesex Hospital.....	300	30	None.	None.	Distributed among other patients.
St. George's Hospital.....	300	11	Two Surgical and one Medical.	1	" " " "
Westminster Hospital.....	150	37	None.	None.	" " " "

Throughout England, indeed all Europe, and from our own country, the testimony is cumulative, and to the best of my recollection nearly uniform from cholera hospitals, that nurses, while they incur the general risks during an epidemic, aside from the effects of fatigue and the excessive use of intoxicating drinks, are not in any degree specially exposed to the disease. I may say, in parenthesis, that I believe there is no fact better established than that intemperate persons are especially liable to cholera. The same statement may be made of those who are employed in rubbing and bathing the sick; of those who empty and cleanse the vessels which receive the discharges; of those who are engaged in transporting the sick, and of those who remove and bury the dead.

But there is a class of nurses and attendants who are more exposed to the disease than those who are usually employed in cholera hospitals. I refer to such as are

engaged in the service of the sick within institutions when the disease has become epidemic. An example or two will make the point clear. In seventeen public lunatic asylums in England (Baly and Gull, 1849) visited by cholera, the total number of patients was 3639; of these 454 were attacked, and 311 died. In the same seventeen institutions there were 407 nurses, attendants and resident officers, of whom eighteen were attacked and six died, or thus—

Attendants attached,.....	1 in 23;	died,.....	1 in 68.
Patients "	1 in 8;	"	1 in 12.

In the Milbank prison, containing at the time 1107 prisoners, twenty persons were charged with the care of the sick, and there were 178 persons who were by their offices not brought in contact with them, or only occasionally. The deaths among the prisoners were forty-eight, or one in twenty-three; among the nurses one, or one in 20; among other persons (including guards, clerks, etc.,) one, or one in 178. Take these two accounts together and it is clear that, so far as the evidence goes, in institutions where cholera is epidemic, nurses are no more liable to the disease than other inmates, making exception for those whose hygienic surroundings were of a more protective character—indeed, in the lunatic asylums, that they were greatly less liable than others; while the one death in the prison makes a very unimportant figure in the statistical estimate on the positive side, though significant in its negative relations.

It does not appear that physicians who are attending cholera patients are more liable to the disease than others; indeed physicians seem to possess more than usual immunity. The number who have died in this city in the various epidemics is small. I have no statistics at hand to guide me, but I am confident that the percentage of mortality among them is less than among persons in the same social rank unconnected with the profession.

Dr. Buel says, referring to the epidemic of 1854, of the Centre street and Twenty-third street hospitals, "there were at different times eight or nine medical attendants, several of whom spent their whole time in the hospitals, eating and sleeping there, and no one took the disease;" and then adds, "among the physicians attending five cholera hospitals, and the various other public institutions in which cholera prevailed extensively, there was not a fatal case, and only two were heard of that had the disease." How sadly the records of typhus fever contrast with these statements, let the honored names engraven on the mural tablet in this Hall testify; let the stricken families, that by a dire conscription are forced to contribute, year by year, their brightest ornament to swell the list of professional victims; let the bereaved and mourning, on whom my words now fall like the knell whose echoes have scarcely ceased, bear witness. An epidemic typhus in a hospital, I might almost say, spares none; while epidemic cholera in hospitals assails so few, that we find no danger in such service beyond what pertains to the general epidemic influences.

In considering facts like these, then, we are obliged to modify the opinion that might be formed from such striking instances as those of the Tooting School and those at Cumberland. Such occurrences can, indeed, be explained upon the general doctrine that there was an atmospheric condition that predisposed to the disease, and that the elements of the special poison were present and ready to combine whenever the ferment should be introduced; and that the ferment was in some way brought by the infected persons to each locality. In the case of the Tooting children, however, the disease did not become epidemic, strictly speaking, in more than one of the five institutions. In the others, one to several of the "attendants" suffered from the disease. In these instances the poison may have been imported, and not reproduced. This view receives support from the fact that "several asylums and workhouses to which the Tooting children were sent were not visited by the disease," although children died in them.

There is another point that I must speak of, relating to the communicability of cholera. Drs. Baly and Gull directed particular attention to the question whether washerwomen, who were employed in purifying the clothes soiled by cholera patients, were particularly liable to the disease. They state that they had eighty-four communications relating to this matter; that in general when washerwomen took the disease, they were surrounded by the same influences that produced it in others, and it was difficult to determine whether there was any special danger in their occupation. They sum up by saying there were only seven instances in the eighty-four in which the evidences seemed fairly to establish connexion between cholera and the clothes. At the same time they say the women who washed the clothing for the Tooting children escaped entirely; and of the thirty women in the laundry of the Milbank prison, not one was affected; while of one hundred women employed in other capacities through the prison, eight took the disease. The liability, then, even for the washerwomen, is not very great; it is perhaps a little greater than for nurses, as it is a little more for nurses than for physicians. But even if it were established that this occupation is especially dangerous, further inquiry would be necessary to determine whether the danger arises from a personal poison or a miasm imported with the clothes.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

RESOLUTIONS ON THE DEATH OF THE LATE PRESIDENT, DR. JOSEPH M. SMITH.

A SPECIAL meeting of the New York Academy of Medicine was held in the lecture-room of Dr. Rice's Church, corner of Fifth Avenue and Nineteenth street, on Tuesday, the 24th ult., for the purpose of taking action concerning the death of their former President, Dr. Joseph M. Smith. The President, Dr. James Anderson, called the meeting to order, and Dr F. A. Burrall was appointed Secretary *pro tem.*, after which the President alluded briefly but feelingly to the circumstance which had called the members of the Academy together.

Doctors E. Delafield, Bulkley, and Loomis were appointed a Committee to present appropriate resolutions; and Doctors Bibbins, E. B. Belden, and W. H. Draper, a Committee of Arrangements.

In offering the resolutions, Dr. Delafield remarked that he was called upon to perform a grateful though painful duty. He felt painfully the loss of a friend with whom he had been associated for many years in the same institution and in ministering to the sick. He had enjoyed and valued the friendship of Dr. Smith, and no human being could speak ill of the beauty of his character, his amiability and worth. Dr. Smith had lived a long life, had made friends everywhere, and enemies nowhere. His reputation as a consulting physician was extensive, and those physicians who called him in consultation knew that they would meet a man of learning, a gentleman, and one who was worthy of their confidence. Yet he did not rise to eulogize the deceased, and would offer the following resolutions:

Resolved, That the Academy has received the an-

nouncement of the death of Dr. Joseph M. Smith, formerly President, and many years one of the most distinguished members of their Association, with the deepest concern.

Resolved, That, although after a life passed in the exercise of his professional duties in a manner always honorable to himself and acceptable to those to whom he ministered, the loss to his family and friends must still be severe and their grief heartfelt; they have much ground for consolation in the recollection that the well spent life of their departed friend has only terminated after a period not very often reached by our race.

Resolved, That apart from the high professional reputation always enjoyed by Dr. Smith, both as a practitioner of medicine and one of the ablest teachers of his day his excellent private character, his many Christian virtues, his uniform courtesy and honorable intercourse with his fellows, have endeared him to the entire profession of the city, as well as to a large circle of private friends.

Resolved, That while the Academy deeply sympathize with his family in their bereavement, they, with all his other friends, feel confident that when time has softened the sadness of parting, the memory of his life will be an enduring source of comfort and pleasure to those from whom he has been taken away.

Resolved, That the members of this Academy will attend the funeral of the deceased, and that the usual badge of mourning be worn on the occasion.

Resolved, That a copy of these resolutions be presented to the family of our late member, signed by the officers of the Academy.

Dr. J. H. Griscom rose to second the resolutions, and referred to the estimable character of the deceased. Was there among us, he asked, a man more amiable, virtuous, or intelligent than Dr. Smith had been? He confessed his own inability to mention such a one. Dr. Smith was cordially prized by all who knew him.

The resolutions were unanimouly adopted.

Dr. W. C. Roberts then observed:

Mr. President: I cannot refrain from offering my humble tribute to the memory of the good man whose loss we are this day assembled to mourn. I have known him more than forty years. I have been many times in intimate professional relations with him, and can speak of him as truly and estimate him as highly as many of my older professional brethren who knew him better. Who that ever aproached him was not charmed with the sweetness and softness of his manner, his courteous and dignified affability, his kind and considerate interest wherever his advice was required, and the delicacy with which that advice was given. At the bedside, how gentle and patient; in investigation, how painstaking; in diagnosis, how accurate; in pathology, how perfect; in practice, how ready and judicious. No one more thoroughly respected the feelings and interests of his professional brethren than Dr. Smith. To his brethren he was *decus et tutamen*, and they loved and honored and treated him accordingly. He had neither enemies nor detractors. Dr. Smith was a learned scholar, an industrious, able, and eloquent writer, and an agreeable speaker. His contributions to medical science are numerous, varied, and valuable, of which the most noted—his Philosophy of Epidemics—will ever remain an imperishable monument of his research and learning.

His zeal and services in the Sanitary Commission, and his long and benevolent hospital service, bear witness to his philanthropy and disinterestedness. The purity of his life and mora's testifies to the exalted religious influence by which his life was governed. He was a Christian physician, citizen, husband, father, and friend. He leaves us now when we never could have loved him better, at a ripe old age, after an active, useful, and prosperous career, in the fulness of professional honor, alike beloved and regretted by his professional brethren and fellow-citizens. We cannot sorrow that he has gone thus to reap the rich reward of his long and faithful services, and has entered into the joy of his Lord; but we can cherish the remembrance of his gentle kindness, of his merits and his virtues; we can imitate his example, and to his younger brethren and those who are to come after him we may say, "Go ye and do likewise." Mr. President, I fully concur in the resolutions.

Remarks were also made by Drs. Bulkley and Raphael.

On motion of Dr. Henschel, the meeting then adjourned.

James Anderson, M.D., President.
F. A. Burrall, M.D., Secretary *pro tem.*

Adjourned Meeting, April 26, 1866.

James Anderson, President, in the Chair.

CHOLERA—ITS CONTAGIOUSNESS, RELATION TO QUARANTINE, ETC.

Dr. Harris, by request of the Academy, gave an account of his visit to the cholera-ship Virginia. He stated that this vessel belonged to the better class of emigrant ships, and he would reiterate this statement, since his former duties had familiarized him with the various differences in these structures. The Virginia sailed from Liverpool on the 4th of April, calling at Queenstown for a company of Irish and Welsh on the succeeding day. The passengers—1029 steerage, 14 cabin—were of the better class, and principally from Holland and Germany. They came on board in a perfectly healthy condition, and so remained until the 12th April. On that date the first case of what was subsequently recognised as epidemic cholera occurred on the orlop deck, which is below the water-line, in the person of a robust Hollander from Elfis, near Rotterdam, who died after a few hours' illness. A woman who was noticed as being in a feeble condition when she embarked, and a child, soon shared a similar fate. Eight deaths with the usual choleraic symptoms occurred on the 13th, and the mortality continued up to the 18th, when the vessel made this port, at which time 37 had died. Beyond the simple notice of the deaths as they occurred, no record of the cases had been kept. On his visit he noticed less suffering from muscular cramps than usual, and the patients seemed to be by no means panic-stricken. Owing to the want of a good linguist, conversation with the passengers was difficult, and not much information concerning the personal habits of any patient was gathered. The epidemic could not be traced with certainty to any locality where it had recently prevailed, although some of those who came from Altenberg and Werden appeared to know more in regard to the matter than they chose to disclose.

By referring to Dr. Burrall's work on "Asiatic Cholera," it will be found that the epidemic which broke out in Altenberg, Sax-Altenberg, and Werden, during the past winter, came from Odessa on the Black Sea.

Dr. Griscom maintained that the cause of this choleraic outbreak resided within the ship itself; that his view regarding the operation of two agents, the one atmospheric and the other local, was still unchanged; and that in this particular instance, under the various depressing influences of insufficient ventilation, and an overcrowded steerage beneath the water-line, with little if any light, he would expect an epidemic of typhus fever at the very least. He was well convinced, too, that cholera followed the track of typhus fever, and that here some peculiar mysterious condition of the atmo-

sphere substituted cholera for that other equally fatal pestilence. He would call attention to the fact that the cabin passengers, who as a class are generally exposed to brisk currents of air on deck, and have the benefit of free ventilation when not thus enjoying themselves, were here also exempt from any choleraic visitation.

Dr. Harris, in reply to a question regarding the treatment employed on board of the Virginia, stated that it was exceedingly simple; that stimulants and capsicum, in conjunction with perfect repose, were mainly employed by the ship's surgeon. These means, he would state, were sometimes followed by gratifying results, more particularly before the stage of collapse had been established, at which time the case was looked upon as desperate, and all remedies regarded as equally unpromising.

Dr. Hubbard inquired whether the cholera was capable of being communicated to others through the medium of a healthy individual who had been exposed to the poison.

Dr. Harris did not expect on the occasion of his official visit to the Virginia to be seized with the disease, since he considered that his physical powers were at the time in excellent condition, and that a considerable amount of exposure would be requisite before a lodgment for the virus could be effected. He as well as other members of his staff had, however, suffered somewhat from the preliminary diarrhœa when on duty at the Quarrantine some years ago; but then an explanation might be found in the fact that, despite all exertions to the contrary, the privies were never in a condition incapable of propagating infection.

Dr. Herzog called attention to certain cases where individuals perfectly well, or to all intents and purposes so regarded, introduced the disease from infected districts to other communities. He would venture the statement, that in the instance of the Virginia those reticent passengers, from Altenberg and Werden, in Saxony, could not have been ignorant of the epidemic which had raged there during the past winter. The persons of the escaped passengers from the quarantine ship at Halifax he would regard as just so many sources from which the disease might emanate. The popular instinct which prompts the giving of a wide berth to all sick or well who have been thus exposed, was nothing more than an exemplification of the self-preservative principle in nature.

Dr. Bibbins desired that the material points of a case cited by Professor Alonzo Clark in his recent lectures upon cholera might be remembered. It was to the effect that an epidemic began in the person of a convict who had passed seven years in solitary confinement. This fact he considered an argument in favor of the non-contagiousness of the disease.

Dr. Underhill, soon after his entrance upon his professional career in June, 1832, received a summons to attend two emigrants from Quebec who had been suddenly stricken down by the disease. A professional brother whom he thought it advisable to call to his aid, along with himself, remained with the patients until their death, which took place after the lapse of some hours. A panic in the neighborhood deprived them of nurses, both paid and voluntary; and in the emergency, actuated by motives of humanity, they substituted their own services in addition to the offices of the physician. During his novitiate he had read every authority upon the subject of cholera that could be obtained by him, and had become a non-contagionist in creed, so that upon this occasion he did not take any particular pains to guard himself against exposure. In short after a warm bath upon retiring, he awoke much refreshed, and escaped without any symptoms of the disease. The experience of his colleague was identical with his own.

Dr. O. White then related several cases occurring in his experience, where the introduction of the disease could be traced to parties from infected districts. One was that of a stage-driver from Harlem, who died soon after arrival in one of the suburban towns, and was the recognised source of the local epidemic. Another instance was that of a family of five adults, about 100 feet from whose residence there occurred a unique case of cholera, which terminated fatally. This result worked upon the fears of the family to an unusual degree, and a majority of their number fell victims. This epidemic spread with virulence, and killed one out of every four that were attacked.

After some further remarks by Drs. Hubbard and Batchelder, and the passage of a resolution referring to the organization of the profession in the event of a choleraic visitation, the Academy adjourned, to meet on the second Wednesday in May.

Dr. Macready's remarks upon the *Physiological and Therapeutical Action of Alcohol*, having not yet been concluded, will be given *in extenso* upon the resumption of the discussion upon the subject.

Progress of Medical Science.

Acute Articular Rheumatism.—In an article entitled *Statistical Report upon Acute Articular Rheumatism*, Dr. A. Fiedler presents some facts as to the occurrence of this disease in the City Hospital of Dresden from the year 1850 to 1862, inclusive. The cases are from the medical division of the hospital under the care of Dr. Walther. Cases of chronic articular or muscular rheumatism are not included, since in these diseases we have probably to deal with entirely different morbid processes from those in the cases under consideration. The whole number of patients was 14,738, of which 651 were cases of acute articular rheumatism, or 4.4 per cent.

Dresden, in respect to other forms of disease, with perhaps the exception of typhus abdominalis, and tuberculosis, may be called a "healthy city." This is, however, not exactly true as to acute articular rheumatism; and in accordance with this fact, heart affections are more numerous there than elsewhere. As to the frequency of the affection in other cities the following may be said: in Stuttgart, it is 1.5 per cent; Würzburg, 1.5; St. Petersburg, 1.7; Bremen, 2; Rostock, 3.3; Zürich, 4; Hamburgh, 4.2–4.7; Giessen, 5; London, 11 5.

As to the sex of the Dresden patients, of 651 patients, 281 were men, 370 women. The time of year has without doubt great influence on the frequency of rheumatism. The months may be arranged in the order in which rheumatism most frequently occurs, as follows: 1. December and May; 2. November, January, March, February, April, and August; 3. September, July, and August. The most frequent period of life in which attacks occurred was from eighteen to twenty-five. The frequency was the greatest in the twentieth year. The youngest patient with rheumatism was twelve years old, but children are seldom admitted to this hospital. A great number of the cases of rheumatism were complicated with endo-or peri carditis; but according to Dr. Fiedler's view these complications are not adapted to statistical collections. The diagnosis of heart affection in rheumatism is often accompanied by great difficulties, and often it is impossible to decide with certainty, if an inflammatory process of the endocardium (and this is partially true as to the

pericardium) really exists: or if the heart sounds do not arise in the same way, and indicate the same as in other acute diseases, *e. g.* typhus, miliary tuberculosis, scarlet fever, measles, in which no inflammatory process, but only a want of innervation or a disturbance in nutrition of the cardiac muscles, is the origin. Frequently we hear in the most different acute and chronic diseases murmurs in the heart, which indicate an imperfect closure of the valves or a narrowing of the openings; and we are surprised on a post-mortem to find not the slightest lesion in the heart: exactly as in other diseases is it in rheumatism. Of these 651 patients only two died of rheumatism itself; one girl of twenty, and a man of twenty-seven. On the section no complication was found, and the death must be considered as from rheumatism. Death occurred frequently from secondary disturbances.—*Archiv für Heilkunde, Heft* 2, 1866.

Treatment of Syphilis with Mercurial Suppositories, by Dr. Tomswitz, surgeon in the Austrian army. Zeissl, in his text-book, page 377, remarks that lately, in such patients as those in which the inunction treatment was not allowable, he has used mercurial ointment in the form of suppositories. I have tried this remedy in the past year in fourteen exquisite cases of syphilis. Each suppository contained one scruple of the ointment, rubbed up with about half a drachm of white wax, about double the size of those used by Zeissl. One is placed in the rectum at the evening visit. The patients had a moderate diet, and were nearly the whole day up and about Moderate use of tobacco, when there was no throat affection, was not forbidden. The cases treated were as follows:—1. Papular syphilitic eruption, from 19th July to 25th August, 30 suppositories; 2. Psoriasis palmaris et plantaris, from 19th July to 20th August, 25 suppositories; 3. Rupia, 28th July to 18th September, 35 suppositories; 4. Macula, 22d July to 20th August, 20 suppositories; 5. Syphilis of mucous membranes, 3d August to 25th September, 34 suppositories; 6. Macula, 8th August to 10th September, 22 suppositories; 7. Macula, 8th August to 15th September, 30 suppositories; 8. Squamous syphilitic eruption (Schuppen), from 28th August to 25th September, 22 suppositories; 9. Syphilis of mucous membranes, from 6th September to 20th, 13 suppositories; 10. Squamous eruption, from 17th September to 25th October, 20 suppositories, etc. The result was in every respect highly satisfactory. No other treatment was necessary in any case. Salivation did not occur. In general I have found salivation to occur very rarely, since Sigmund's direction as to washing the mouth with cold water was energetically carried out.—*Allgemeine Militärischliche Zeitung, March* 11, 1866.

New Method of Reducing the Inverted Uterus.—Dr. Thomas Addis Emmet, Surgeon to the State Woman's Hospital, New York, has reported (*Amer. Jour. Med. Sciences*, April, 1866) a second successful case of reduction of inversion of the uterus by an original method. This operation was performed February 17, upon a patient in the St. Vincent's Hospital of this city, under the care of Dr. Gouley. "In June last, the patient was delivered by a very rapid labor, in which she had but one severe expulsive pain, just as the head was expelled." The after-pains were severe, and came on at once. From a short time after delivery until the reduction, there had been a constant show, which frequently amounted to a hæmorrhage, and she presented the appearance of one who had been suffering from an excessive loss of blood. Her condition had been attributed to the existence of a polypus, which was supposed to be protruding from the os uteri, and she had been sent to the hospital for the purpose of its removal. An examination readily disclosed the condition of things; and the patient being etherized, Dr. Noeggerath's method was first tried, and afterwards that of Prof. White, of Buffalo; but without success. It may be here remarked, the organ was so dense, and was contracted to so nearly its natural size, that the case was not a fair one for testing either of the modes. Finally, Dr. Emmet employed his method, an idea of which is conveyed in the following description which he gives of the operation: "With the left hand in the vagina, the four fingers were passed as far up as possible between the inverted portion and the neck, with the thumb in front, so that the body was encircled by the fingers, and the fundus rested in the palm. Then, with an upward and outward pressure at the same time, the neck was gradually dilated until the seat of inversion was reached by the frequent extension of the fingers. This manœuvre was persevered in, while during the whole time the organ had been lifted above the pubes, so that the other hand could assist in the rolling out of the parts by sliding upwards the abdominal walls, with a steady pressure over the posterior portion of the ring formed by the inversion. In less than half an hour the mass, as felt through the abdominal parietes, had doubled in size, the depression in the centre had become larger, and the shape changed from a circle to an oval. The fundus gradually passed entirely within the cervix; but after this the progress, as appreciated from the fingers within the uterus, was almost imperceptible; but the rapidly-increased size of the mass and the diameter of the depression at the seat of inversion was recognised by all present."

At the end of an hour, the hand of the operator became powerless, and Dr. Noeggerath was asked to complete the operation, which he succeeded in doing in about ten minutes.

The patient entirely recovered. Dr. E. is satisfied that it is beyond the power of endurance for one person to complete the reduction, especially in a long-standing case, without assistance, and advises that a change of hands should be frequently made. Dr. Emmet's first case is reported in the same journal for January.

Trichinosis.—Dr. Pleische, of Vienna, recommends the use of fomentations of common salt in Trichinosis. This is the remedy which *Laennec* used in cases of echinococcus. Dr. P. recalls two cases where the latter-named parasite infested the liver, occurring in Professor Oppolzer's clinic, where favorable results followed this treatment. One of the patients still lives in Vienna in good health Compresses are moistened in a solution of common salt, covered over with flannel, and applied where the local symptoms manifest themselves. Where slight or no fever exists, salt water baths might be taken, and even salt administered internally in three to four drachm doses.—*Viener Medicinische Presse, Feb.* 18, 1866

ANOTHER REMEDY FOR TRICHINOSIS.

℞	Tinct. Capri acetici .	ʒ i.
	Aq. Cinnamomi . .	℥ i.
	Muc. Gumm. Arab. .	℥ vi.

M.

Take a teaspoonful every hour.

Infant Drunkards.—M. Jules Simon, in his new work "Le Travail," states that at Jelle and Rouen there are some women so saturated with intoxicating liquor that their infants refuse the breast of a sober woman. In the mountains of the Vosges the infants drink brandy —*Lancet.*

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, M.D., EDITOR.

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New York, May 15, 1866.

THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THE proceedings of the last meeting of the American Medical Association, which appear in full in our present number, will, no doubt, be read with interest by every one. As the representative medical body of this country, its doings must be acknowledged to possess no small influence upon the profession on the Western Continent.

Many matters, great and small, have been discussed; and the various decisions that have been made in the premises are now on record, and must commend themselves or not to the adoption of the profession in proportion to the amount of wisdom and sound judgment that have been displayed by the parties concerned.

There are some points in these proceedings which invite from us a passing comment.

A greater part of the morning session of the first day was occupied with Dr. PALLEN's case, the details of which are already familiar to our readers. The discussion was quite animated, and the final action taken was very proper. The Association not only received the injured Fellow into full membership again, but expressed regret at the hasty action taken at the meeting in Boston.

The subject of specialism also claimed not a little of the time of the Association. No definite action, we are glad to say, was taken upon the matter, notwithstanding the well pointed arguments urged by the opposing parties in favor of their several views. The discussion might have been never-ending had not the gentleman from Philadelphia, Dr. COHEN, secured the passage of the resolution to lay it on the table for a special order of business during the next annual meeting. We, however, doubt whether the Association will be able to dispose of the subject even then. In fact, with such a radical difference of opinion in the two parties concerned, we may never hope for a proper solution of the vexed question. These differences of opinion were pleasantly enough presented; but no one not directly interested could fail to appreciate the existence of a very deep and strong current of feeling which every moment threatened to undermine the very best of intentions.

The subject of Cholera was also taken up, and as it seemed to be the intention of the Association to fully discuss the disease, all were prepared, not only for an interesting presentation of facts, but for some intelligent and enlightened action upon such facts. More especially was it hoped that this would be the case with regard to the expression of an opinion as to the utility of quarantine; but, alas! disappointment awaited all those who were sanguine on this point. The non-contagionists, with a narrow-mindedness that was truly remarkable, refused to recommend even the testing of the utility of the measures proposed by Dr. MARSDEN, of Quebec. The original mover of a resolution to bring the matter to the notice of Congress and recommend action in the matter, although he had no intention of committing the Convention to any idea of contagion, had seemingly such an object in view. We were not surprised, then, to find that his recommendation was not endorsed. The resolution would have been laid at once on the table had not Dr. BURGE, of Brooklyn, come to the rescue in a conservative amendment. This amendment was perfectly non-committal, its intention merely being to prove to the Executive that the Association believed enough in any quarantine plan to desire a fair test of its utility; in other words, that it wished to be on the safe side in countenancing such a perfect plan of quarantine as was recommended by Dr. MARSDEN. The amendment was, with shame be it said, tabled.

We might allude to other matters, such as the subject of Medical Education, for instance, but this is too extensive a subject to discuss in our necessary brief comment, and so deferring it for a more convenient season, we must hasten to close our remarks.

The meeting was pretty largely attended, but there was by no means such a number present as we had expected there would be. We regretted to see so many seats vacant that should have been filled by Southern medical men. Although this was the case, we have every reason to hope that better times are coming, at least judging from the kind feeling towards the Association expressed by those few who were present.

We would not be doing justice to the profession of Baltimore, to the Corporation authorities, and to the Executive of the State, were we to omit allusion to the elegant and refined hospitality which they tendered the members of the Association during their sojourn.

IN consequence of the very full report of the meeting of the American Medical Association, we have been compelled, in order to have room for other "copy" which also "must go in," to make an addition of eight pages of reading matter to the present number. To this we do not suppose that any of our readers will

object. But as the practicability of making the addition was decided upon rather late in the day, we fear that our subscribers will not get their numbers with usual promptness. We hope, however, to be able to mail the issue on or before the 14th inst.

American Medical Association.

FIRST DAY.—MAY 1.

The Seventeenth Annual Meeting of the American Medical Association was held in the city of Baltimore, at Concordia Hall.

The Association was called to order at 11 A.M., Tuesday, May 1, by the President, Dr. D. Humphreys Storer, of Boston.

On motion of Dr. Bissell, of New York, the ex-Presidents and ex-Vice-Presidents were invited to take seats on the platform.

The Rev. Dr. Spies, of Baltimore, was introduced, and opened the meeting with prayer.

Dr. C. C. Cox, on behalf of the Committee of Arrangements, in an eloquent address, gave a warm welcome to the Association, and hoped that when the short stay of the members was ended, they would have cause to retain kindly remembrances of the Monumental City. He expressed his regret that so few delegates from the South were present, and hoped that now that peace had come, they would again return, and aid the Association with their learning and experience in the great work the profession had before it. He paid a high compliment to the fidelity of the surgeons on both sides during the late war, and referred in pathetic terms to the many learned men who have been taken away by death since the Association met in Baltimore eighteen years ago, and closed by again warmly welcoming the visiting brethren.

THE CASE OF DR. MONTROSE A. PALLEN.

Dr. Cox then offered certain documents exculpating Dr. M. A. Pallen of Missouri from the charges brought against him at the meeting in Boston, and for which he was then expelled.

On motion of Dr. W. Jewell, of Pennsylvania, the order of business was suspended, in order to allow these to be received.

Dr. Cox moved that the papers be referred to the Committee on Medical Ethics, with a request that they report promptly.

Dr. Ordway, of Boston, was disinclined to have the subject go before a committee, and contended that Dr. Pallen should be as speedily and publicly invited to a participation in the business of the Association, as he had been hastily and unjustly expelled at the previous meeting.

Dr. Davis, of Illinois, favored the reference, because he thought, as the action of last year had been placed upon the record of the Association, that all the action reviewing the work of that meeting affecting Dr. Pallen should be fully spread upon the record. He would like to have it referred to the Committee on Ethics, with instructions to report as early as practicable.

After much discussion, the whole matter was finally referred to the Committee on Ethics, with instructions to report forthwith.

Dr. Worthington Hooker, of New Haven, stated that he was the only member of that committee present; whereupon Dr. Brinsmade of New York, and Dr. Davis of Illinois, were added to the committee.

Dr. Thomas E. Bond, of Baltimore, moved that the committee to whom was referred the case of Dr. Pallen be instructed to report the expression of most profound regret that the Association should have been hurried into its unjust action to Dr. Pallen; and that they express the hope that Dr. Pallen would accept such acknowledgment as an expression of a frank apology for the great wrong done him. This, together with an amendment, was laid on the table.

Dr. William B. Atkinson, of Philadelphia, the Permanent Secretary, then called the roll of members.

On motion of Dr. Cox, it was determined that the successive morning sessions of the body should commence at nine o'clock. He afterwards announced the arrangements which had been made for the meeting of the several sections during the afternoons.

Also, on motion of Dr. Cox, Dr. James E. Reeves was invited to a seat with the Convention.

Dr. Bond on motion, then brought up his motion with reference to Dr. Pallen.

Dr. Storer, of Massachusetts, explained that the charge against him was not of disloyalty, but that he had been guilty of the grossest unprofessional conduct in an attempt to poison the Croton Aqueduct.

Dr. Jewell, of Philadelphia, called the gentleman to order, saying that the resolution of Dr. Bond was out of order.

Dr. Holton, of Vermont, thought it rather strange to appoint a committee to report in the premises, and then instruct them how to report.

The suggestion of Dr. Bond, which had been incorporated into a resolution, was finally laid on the table.

Dr. Hooker, Chairman of the Committee on Ethics, then presented the following report, which, after being warmly discussed by Drs. Owens and Bond of Maryland, and Tyler of Washington, was finally adopted:

"The Committee to whom were referred the papers in relation to the expulsion of Dr. Montrose A. Pallen, at the meeting of the Association in Boston, respectfully report:

That they have examined the documents and evidence referred to the Committee, embracing papers endorsed by General U. S. Grant, the Vice-Consul of the United States at Montreal, and many citizens of Missouri, and are fully satisfied that the statements on which his expulsion was based were entirely unfounded; and, therefore, regretting the injustice done, both to Dr. Pallen and the Association, we recommend the following resolution:

Resolved, That the preamble and resolution adopted by the Association at its annual meeting in Boston, June, 1865, expelling Dr. Pallen, be hereby rescinded; and that Dr. Montrose A. Pallen be restored to his previous membership in the Association."

On motion of Dr. Ordway, a Committee of Three was appointed to wait upon Dr. Pallen, and inform him of the action taken in his case; and on motion of Dr. Owens, Dr. Cox was made chairman of said committee.

Dr. Pallen was then presented to the Association, and thanked them in an appropriate and feeling manner for the action they had taken in regard to his case.

THE PRESIDENT'S ADDRESS.

Dr. D. Humphreys Storer, the President, followed with his annual address. His subject was that of Specialties in Medicine. The ground which he took was one of encouragement to all such worthy and qualified young men as chose to confine their particular attention to one branch. The address was a well written and interesting one, and commanded the most respectful attention of all present.

On motion of Dr. Holton, of Vermont, the thanks of the Association were tendered to the President, and the address was referred to the Committee on Publication.

The reports of the Special Committees were then

called for, and all the papers that were presented were referred to appropriate sections.

The following voluntary papers were then in turn offered, and in like manner referred: "On Luxation of the Hip-Joint, Nine Months' Standing, etc.," by Dr. L. A. Sayre, of N. Y.; "On Improvements in Water Pipes," by Dr. J. C. Draper, N. Y.; "On Extirpation of the Uterus," by Dr. H. R. Storer, of Boston; "On Permanganate of Potassa as a Purifier," by Dr. Craig, of D. C.; "On the Application of Local Anæsthesia to Practical Medicine," by Dr. J. Solis Cohen, of Philadelphia; "On Aluminium in Dentistry," by Dr. Mason, of Mass.; and "On Exsection of Lower Jaw," by Dr. D. C. Enos, of N. Y.

On motion of Dr. Cox, Dr. E. Brown-Séquard was invited to deliver a lecture before the Association upon the treatment of nervous diseases at 11 A.M., on Wednesday.

On motion of Dr. Davis (Ill.), Dr. H. Marsden, of Quebec, was elected a member by invitation, and invited to a seat upon the platform.

The meeting then adjourned to meet at 9 A.M. on Wednesday.

PROMENADE CONCERT.

During the evening a promenade concert was given to the members of the Association by the Committee of Arrangements, at Concordia Hall. Although the evening was a stormy one, the attendance of ladies and gentlemen was unexpectedly large. At the conclusion of the concert, the company was regaled by a magnificent supper.

SECOND DAY.—MAY 2.

The Association was called to order by the President, Dr. D. H. Storer, at 9 A.M.

The Committee on Epidemics, Meteorology, etc., having been called upon, Dr. Davis stated that Dr. Hamill had presented a report which he had taken to the Section on Epidemics, etc.

Dr. Cox made an additional report from the Committee on Arrangements on Railroads, that invitations had been received from Drs. Smith and Donelson, for the members of the Association to visit their houses that evening. He also recommended the following gentlemen as members by invitation: Drs. Jno. A. Reed, W. Whitridge, L. M. Eastman, of Baltimore; Peter Parker of China. They were elected.

On motion of Dr. Davis, the order of business was suspended.

The report of the Committee on Publication was read and accepted.

On motion of Dr. Sayre, of New York, the Publishing Committee were authorized to enforce strictly due care in regard to proofs, etc.

The Treasurer then read his report, which was referred to the Committee on Publication.

On motion, the order of business was resumed.

On motion of Dr. Davis, a recess of fifteen minutes was taken by the Association, to allow of the appointment of members of the Nominating Committee.

THE NOMINATING COMMITTEE.

On the resumption of business, the following members of that Committee were announced:

J. C. Weston, Me.; J. C. Eastman, N. H.; Wm. McCollim, Vt.; J. R. Bronson, Mass.; D. King, R. I.; W. Woodruff, Conn.; J. C. Hutchinson, N. Y.; W. Pierson, Jr., N. J.; H. F. Asken, Del.; John L. Atlee, Pa.; J. J. Cockrill, Md.; M. A. Pallen, Mo.; N. S. Davis, Ill.; W. Lockhart, Ind.; J. M. Withercone, Iowa; N. R. Bozeman, Ala.; C. M. Stockwell, Mich.; H. Van Dusen, Wis.; T. A. Atchison, Tenn.; G. Fries, Ohio; G. Tyler, D. C.; W. M. Charters, Geo.; J. Simpson, U.S.A.; N. Pinkney, U.S.N.; Greensville Dowell, Texas.

Dr. W. Hooker offered the following resolution, which was unanimously adopted:

"*Resolved*, That no report or other paper shall be presented to this Association unless it is so prepared that it can be put at once into the hands of the Secretary, to be transmitted to the Committee on Publication."

Dr. Wister, of Pa., offered the following, which was adopted:

"*Resolved*, That Drs. Grafton Tyler, W. P. Johnson, and Jas. M. Toner, of D. C., be a Committee to procure a room in the Smithsonian Institution, for the preservation of the Archives of the Association."

The Committee on Medical Education not having prepared a report, Dr. J. F. Hibberd offered instead thereof the following preamble and resolution, and moved that it be adopted as the sentiment of the Association:

"*Whereas*, Two-thirds of the Medical Colleges of the States of Ohio, Michigan, Illinois, Iowa, Missouri, Kentucky, and Tennessee, by delegates in convention assembled in Cincinnati, on the 24th of April ult., did, by resolution unanimously adopted, declare their willingness to make their annual college sessions to continue for six months, and to establish a uniform rate of fees, if the other principal colleges of the country will coöperate; now, therefore,

"*Resolved*, That the American Medical Association hereby expresses its warmest approbation of the action of the above recited colleges, and expresses the hope that every Medical College in the Union will concur in the proposition thus made."

On motion of Dr. Taylor, of Iowa, its consideration was postponed till 11 A.M. on Thursday, to be acted upon in Committee of the Whole.

Dr. C. A. Lee, of N. Y., commenced reading his report upon Medical Literature. He divided up his subject as follows: I. Periodical Medical Press. II. Medical Literature of the War. III. Literature of the Sanitary Commission and of Sanitary Sciences. IV. State and County Society Transactions. V. Literature of Special Subjects and of Specialties. VI. Literature of Pharmacy and Materia Medica. VII. Of Vital Statistics. VIII. Of Life Assurances. IX. And of Introductory Lectures.

He was interrupted at eleven for the regular order of business, which was the lecture of Dr. Brown-Séquard, on the Treatment of Functional and Organic Diseases of the Nerves. We hope to give our readers a detailed report of this very interesting lecture in a future number.

On motion of Dr. Raphael, of N. Y., the thanks of the Association were tendered to Dr. Brown-Séquard for his interesting, able, and eminently practical lecture, and he was requested to furnish an abstract for publication.

Dr. C. A. Lee then resumed the reading of his report.

After this had continued for some time, on motion of Dr. Toner, the further reading was discontinued, and the paper referred to the Committee on Publication.

Dr. Gross, Chairman of Committee on Medical Education, reported that he had not prepared a report, and asked that the Committee be discharged, which was granted.

REPORT OF PRIZE COMMITTEE.

Dr. E. Eliot, Secretary of the Committee on Prize Essays, read the report of that Committee.

On breaking the seals, Dr. W. F. Thoms, of New York city, was ascertained to be the author of the "Essay on Health in Cities," etc., and was entitled to the first prize, and Dr. S. R Percy of N. Y., on "Digitaline," etc., to the second.

On motion, the paper on Angular Curvature of the Spine was referred to the Section on Surgery.

The report of the Committee on Medical Ethics having been offered, it was made the special business for 9.30 on Thursday.

Dr. MARSDEN, of Canada, having been announced as desirous of making some remarks on Cholera,

On motion, it was agreed that he should follow immediately after the report on Medical Ethics.

Dr. COHEN offered a paper on Paralysis of the Vocal Chords and Aphonia, etc. Referred to the Section on Surgery.

Dr. H. R. Storer offered a paper on the "Clamp Shield," an instrument designed to lessen the dangers of extirpation of the uterus by abdominal section.

Dr. BOZEMAN, of Ala., was introduced to the Association, and on motion of Dr. Holton, he was made the member of the Committee on Nominations for Alabama.

Dr. Askew offered the following resolution on the death of Dr. Cowper, which was unanimously adopted:

"*Whereas*, We have heard with profound regret of the death of our deservedly esteemed friend and associate, James Cowper, M.D., of Delaware, late Vice-President, and one of the founders of the National Medical Association; and whereas, we desire to express our high appreciation of his worth as a man, and valuable and untiring energy in the cause of medical science; mild, modest, and unassuming, of devoted piety, he was firm, constant, and reliable; a strict adherent to the ethics of the profession, he occupied a front rank, and died beloved, respected, and lamented by all who knew him,

"*Resolved*, That in the death of Dr. James Cowper we have lost a friend and brother, and that we sincerely and deeply condole with his sorrow-stricken widow and family, and that the Secretary be authorized to forward a certified copy of these resolutions to his family."

Dr. TONER, of D. C., offered the following resolution, which was adopted:

"*Resolved*, That instead of yearly reprinting the list of members of the American Medical Association with the Transactions of the same, the Secretary be instructed to prepare and have printed in pamphlet form, a triennial alphabetical catalogue, containing the Constitution of the Association, and a list of members with their full names, designating their residences, the year of their admission, arrearage of yearly dues, the offices they may have held in this body, and in case of death or resignation, the year, and distribute the same among the contributing members."

On motion, the resolution was referred to Committee on Publication.

Dr. J. C. HUGHES, of Iowa, offered a paper on Lithotomy, which was referred to Section on Surgery.

Dr. TAYLOR, of Iowa, introduced a resolution for the appointment by the President of the Association of a member from each State, to memorialize Congress for an appropriation to publish the reports and documents of the Surgeon-General of the United States.

Dr. PALLEN recommended that the reports and documents of the like character connected with the rebel army, be also referred to the same committee for access to the same. Dr. Pallen, after some discussion, withdrew his amendment.

The original motion was carried.

It was then moved that the President announce said Committee on Thursday morning.

The meeting then adjourned.

SECOND EVENING.—SOIREES AT PRIVATE RESIDENCES.

The evening was occupied by the members of the Association in responding to the kind invitations of the physicians of Baltimore to soirées at their respective residences. The houses of Drs. C. C. Cox, Bond, Surgeon Simpson, U.S.A., Professor N. R. Smith, and others, were thrown open. The entertainments were of such a character as reflected great credit upon the taste and hospitality of the gentlemen concerned.

THIRD DAY.—MAY 3.

The Association was called to order at 9 A.M. by the President, after which, the announcement of the members of the Committee to memorialize Congress on the publication of the surgical history of the war, was made.

Dr. C. C. Cox, of the Committee on Necrology, reported progress, and on motion of Dr. Hibbard, permission was given the reporter to send the report when ready to the Committee on Publication.

THE DEATH OF PROFESSOR JOSEPH M. SMITH, OF NEW YORK

Dr. ALFRED C. POST offered the following, which was unanimously adopted:

"*Resolved*, That the Association has heard with sincere regret of the death of its late distinguished member, JOSEPH M. SMITH, M.D., of New York:

"*Resolved*, That we cherish his memory as that of a learned and skilful cultivator of medical science, an able and successful teacher and writer, an upright and honorable man, and a patriotic and public-spirited citizen.

"*Resolved*, That the Secretary communicate to the family of the deceased, an expression of our sympathy with them in their bereavement."

Dr. C. A. LEE arose to speak to these resolutions, which he did with much feeling. He hardly thought that it was necessary to say anything in regard to the life or character of such an excellent and well beloved man, but as he had been intimately acquainted with him for over thirty years, he did not think it out of place for him to say a few words. After referring in an appropriate manner to his acquaintance with the deceased, he remarked "that a more pure, upright, and conscientious man I never knew, particularly with reference to his intercourse with medical men. When I think of the great loss we have sustained in him, I am at a loss to express myself."

Dr. J. S. KING of Natchez, Mississippi, forwarded a communication to the Association, stating that he was engaged in the compilation of the mortuary and similar statistics of the principal cities and towns of the country, and requesting that physicians would transmit to him such information upon those subjects as they could gather in their respective localities.

The SECRETARY read a communication from the Dubuque (Iowa) Medical Society, requesting the erasure of the name of Dr. Asa Horr.

On motion of Dr. JEWELL, the request was granted.

Dr. MAYBURY, on behalf of the Committee on Publication, to whom Dr. Toner's resolutions were referred, reported the following as a substitute, which on motion was adopted:

"*Resolved*, That instead of yearly reprinting the list of members of the American Medical Association, the Committee on Publication be instructed to prepare and print with the Transactions, an alphabetical catalogue triennially, containing a complete list of the permanent members, with their names in full, designating their residences, the year of their admission, the offices they may have held in the Association, and in case of death or resignation, the date thereof."

Dr. MAYBURY also presented the following, which, on motion, was referred to the Committee on Ethics.

"*Whereas*, Medical organizations, such as National, State, and County Societies, are believed to be absolutely necessary to preserve the honor of the medical profession, and to keep alive social and fraternal feelings among the members thereof, as well as an important means of promoting medical knowledge and elevating the character of the profession, therefore

"*Resolved*, That it is with sincere regret that we, the members of the Montgomery County Medical Society of Pennsylvania, learn that some honorable members of the Faculties of our medical colleges in Philadelphia and elsewhere, have kept aloof from the County Societies on which rest both State and National organizations, thus ranging themselves on the side of those whose unprofessional conduct or low standard of medical attainment, or disregard of medical etiquette, prohibits them from membership in those societies.

"*Resolved*, That as graduates of the University of Pennsylvania, Jefferson Medical College, and Pennsylvania Medical College, we have a high regard for the teachers of those institutions, and feel that they owe it to the profession and to our Alma Maters to give their hearty support to medical organizations in general, and especially to the County and State Medical societies.

"*Resolved*, That although Colleges are entitled to representation in the American Medical Association by one or more of their Professors, we are decidedly opposed to any College or any other medical organization being represented by a Professor who is not a member of a County Society.

"*Resolved*, That the Corresponding Secretary of this Society be instructed to report these proceedings to the Philadelphia County Medical Society, and that our delegate be charged to lay them before the American Medical Association at the coming meeting to be held in Baltimore on the first day of May next, as well as before the Medical Society of the State of Pennsylvania at its next meeting, to be held at Kingston in Luzerne County, on the thirteenth day of June ensuing."

W. P. ROBINSON,
President Montgomery Co. Med. Soc., State of Pennsylvania.
E. SMYSER,
Corresponding Secretary.

THE REPORT OF COMMITTEE ON ETHICS.—SPECIALTIES IN MEDICINE.

Dr. WORTHINGTON HOOKER offered the majority report, and in the main took the ground adverse to exclusive specialties. He divided up the subject into exclusive and partial specialties. In reference to exclusive specialism, he maintained that local affections were apt to be unduly estimated, to the exclusion, perhaps, of other parts of the system that were of more importance in the production of a particular disease; that diseases cured by a specialty are magnified in their importance; that specialists too frequently undervalue the treatment of diseases by the general practitioner; that there is a temptation to employ undue measures to obtain notoriety; and that he is further tempted to charge unduly large fees. The field of medical practice were so large that the profession was always willing to seek advice from those who had devoted attention to particular subjects; but this should not encourage exclusive specialism. The specialty should be a natural outgrowth from the general practice, and should never be separated from it. If this were so, a full, frank, and free intercourse would be had between the specialists and general practitioners. The means availed of by the specialties to bring this fact before the public should be ordinary, and not extraordinary. There should be neither advertisements nor puffs in the newspapers. The professor in a school has been chosen for it by those who are competent to discuss his merits for that position, if he were by himself to place before the public the fact that he is specially skilled in the branch taught by him, he would come under this censure.

The report was well drawn up, and claimed the undivided attention of the members.

Dr. KENNEDY, of New York, followed with a minority report, stating that he would read it in the absence of the writer. The writer believes that the whole tendency in every department of science is towards specialties. Science has been advanced during the last century by this course. Recently this tendency has shown itself in the persons of certain practitioners who resign all general practice, and confine themselves to the specific department they have chosen. No association can object to the advertisement in such cases, unless it is of a mountebank character. The report was signed by H. J. Bowditch.

The subject was then discussed by Drs. H. R. Storer of Boston, Worthington Hooker of New Haven, and others; but the hour of eleven having arrived, Dr. W. Marsden of Quebec was introduced, and proceeded to address the Convention on the subject of cholera connected with Quarantine.

CHOLERA AND QUARANTINE.

Dr. MARSDEN, of Quebec, according to previous appointment, made some remarks upon Cholera. He commenced by stating his belief in the communicability of cholera, and the efficiency of a rigid quarantine. He had witnessed the first case that had occurred on the American continent, and since that time had given much attention to the study of the disease. He was now convinced that every case of cholera could be traced to infection, and that the proper soil for the propagation of the disease was to be found in filth and the neglect of the ordinary sanitary precautions. He believed that all clothing from patients suffering from the disease should be destroyed, and thus be prevented from spreading the disease. He believed that isolation would prevent the appearance of the disease in any community, and related an instance in point which had made such a strong impression upon him that he was caused to think first of his plan of quarantine. It seems that a schoolmistress, in a locality where cholera threatened to make its appearance, consulted the doctor on the best course to pursue. He advised her, as soon as the disease should appear, to isolate the school from the rest of the town, by closing her gates and doors. This was done, and not a single case of cholera occurred within the walls. Dr. Marsden next gave the members a detailed account of his system of quarantine. As all of our readers may not be familiar with this plan, we will quote from his printed report which he gave us:

"1. The Cholera Quarantine Station shall be divided into three separate and distinct sections or departments.

"2. Each of these three sections or departments shall be isolated and separated from the others by a *cordon* or portion of neutral ground of not less than one hundred feet wide.

"*a.* One of these sections or departments shall be appropriated to the use of the sick, and shall be the Hospital Department.

"*b.* The next or central section or department shall be devoted to the use of passengers not having had cholera, but from infected vessels.

"*c.* And the third or healthy section or department shall be appropriated to the use of the healthy, who have been removed from the central department, after having performed quarantine there.

"*A.* In the first section or department there shall be three separate and distinct hospitals, besides a convalescent shed or hospital.

"*a.* The one for confirmed cases of cholera to be called the CHOLERA HOSPITAL.

"*b.* Another for cases of choleraic diarrhœa, or other

premonitory symptoms of cholera, to be called the Hospital for Cholerine.

"*c.* The third for all other diseases not cholera, or cholerine, but coming from on board infected vessels, or vessels having had cases of cholera on board, to be called the General Hospital.

"*B.* The next or central section or department, shall be the primary quarantine department, and shall be appropriated to all persons who are not sick, but come from vessels having had cholera on board, and wherein every case on landing shall undergo inspection, washing, cleansing, and purifying both of persons and personal effects. There a quarantine of four days shall be performed, at the end of which period of time all such persons as continue in sound health shall be removed to the Final Quarantine Department, and any that may fall sick or be threatened with sickness during the four days of probation, shall, as soon as detected, be removed to the proper hospital, in the Hospital Department. There also the healthy inmates shall be removed daily to a new locality, thus occupying four different habitations during their sojourn.

"*C.* The third, or healthy department, shall be the Final Department, and shall be for all cases coming from the Primary Quarantine Department, after having been cleansed, washed, and disinfected, and after having undergone the *four days'* quarantine; and here a further quarantine of *six days* shall be performed (excepting cases coming from the convalescent hospital or shed, hereinafter provided for), making in all *ten days* of quarantine, when all persons continuing healthy shall be discharged from quarantine, and be removed from the station. If any premonitory symptoms or other cases of sickness occur in this department during the six days of quarantine, they shall, as soon as discovered, be removed to the proper hospital, in the Hospital Department.

"No communication shall take place with the Hospital Department, except through the central or Primary Quarantine Department, for which purpose a passage, unfrequented by the persons undergoing quarantine, shall be set apart and reserved."

Dr. Lee moved the thanks of the Association to Dr. Marsden for his interesting and practical address, and the request of the body that he furnish it with a digest of his communication.

Dr. Bond amended, that those papers accompanying the lecture be commended to the city authorities, and the authorities having such matters in charge throughout the country, for their action.

Dr. Jewell thought the matter should be further investigated, and moved its reference to the Section on Hygiene, to meet that afternoon.

The special business of the day was suspended to allow the Committee on Nominations to report.

THE OFFICERS FOR 1866–7.

President—H. F. Askew, Delaware.

Vice-Presidents—W. K. Bowling, Tennessee; J. C. Hughes, Iowa; H. J. Bowditch, Massachusetts; Thos. C. Brinsmade, New York.

Permanent Secretary—William B. Atkinson, Pennsylvania.

Treasurer—Casper Wistar, Pennsylvania.

Assistant Secretary—W. W. Dawson, Cincinnati.

Committee of Arrangements—Drs. John A. Murphy, James Graham, R. R. McIlvaine, J. P. Walker Unsicker, William T. Brown, William B. Done, Cincinnati.

Committee on Medical Education—Drs. T. D. Gross, D. F. Condie, John Bell, H. J. Bigelow, Charles A. Pope.

Committee on Prize Essays—Drs. Francis Donelson, Maryland; Simpson, U.S.A.; C. C. Cox, Warren, Van Bibber.

Committee on Publication—Continued.

Committee on Medical Literature—Drs. A. C. Post, Jas. Anderson, H. D. Noyes, T. G. Thomas, Stephen Smith, all of New York.

Committee on American Medical Necrology—Dr. Wood, Delaware, substituted for Dr. Cooper; Jno. L. Callender, in place of Dr. Bowling; Jno. Blaine, in place of Wm. Pearson. The following were added: Drs. R. D. Arnold, Georgia; Lopez, Alabama; G. Dowell, Texas.

Committee on Climatology—H. Jones, in place of C. L. Allen, Vermont. The following were added to the committee: Drs. U. Harris, Georgia; G. Engelman, Missouri; R. Miller, Alabama; Fenner, Louisiana; G. Dowell, Texas.

All special committees are to be selected by the sections to which the subjects relate.

THE NEXT PLACE OF MEETING.

The place recommended for the next annual meeting of the convention is Cincinnati, Ohio, on the first Tuesday in May.

On motion of Dr. Ordway, of Boston, the report of the committee was adopted.

On motion, the Association went into a committee of the whole to discuss the resolution offered by Dr. Hibbard, having reference to extending the time for the course of study in the different medical colleges.

The whole matter was earnestly discussed by Drs. D. H. Storer, Worthington Hooker, Wright, of Ohio, Davis, of Ill., and others, and resulted in the passage of the following resolution, offered by the last gentleman:

"*Resolved*, That the Association most earnestly request the medical colleges of the country to hold a convention for thoroughly revising the whole system of medical college instruction for the purpose of establishing more uniformity of time, and a more systematic course of instruction for the whole."

The report of the Committee of the Whole was adopted, and a committee consisting of Drs. Davis, W. Hooker, S. D. Gross, Wright, and Shattuck, was appointed.

Dr. C. C. Cox read the report "On Rank in the Army," which was referred to the Committee on Publication.

Dr. Cox then offered the following, which was adopted:

"*Resolved*, That the President of this Association bring before the notice of the Military Committees of both Houses of Congress, at as early a period as possible, the present status of medical men in the military service of the U. S., and urge upon them that in the army medical bills, under consideration of Congress, the interests of the medical profession shall be so regarded that the medical staff in the service shall, numerically considered, receive the same rank and command as officers in other staffs of the army are justly entitled to."

The committee appointed to act on the foregoing resolution were Drs. D. H. Storer, C. C. Cox, Antisell, Johnson, and Allen.

On motion of Dr. Cox, the following members, by invitation, were elected: W. D. Stewart, Va.; W. S. Forward, H. W. Stump, and J. L. Chaplain.

A committee was appointed on the subject of Fracture of the Spine, of which Dr. Brown-Séquard was made chairman.

On motion, Drs. Post, Antisell, and Atlee were added to complete the Committee on Medical Ethics.

SPECIALTIES AGAIN.

On motion, the report of the Committee on Ethics, which had been laid on the table, was called up.

On motion of Dr. TONER, the resolution attached to the minority report was omitted, and the reports were both adopted.

A motion to reconsider next prevailed, and the resolution was added to the minority report referred as before.

Dr. HOMBERGER, of N. Y., made a request to offer a personal explanation, which after considerable discussion, confusion, and sensational speaking, was granted.

On motion of Dr. SAYRE it was agreed to hold an adjourned meeting at 5 P.M., to discuss the subject of cholera.

A communication from Dr. McGEE, "On Periosteal Flap Amputations," and one from Dr. Elsberg, N. Y., "On Diagnosis of Diseases of the Larynx," received, and both referred to the Section on Surgery.

The meeting then adjourned until 5 P.M.

THIRD DAY—AFTERNOON SESSION, MAY 4.

At five P.M., according to previous adjournment, the Association met, and after being called to order, resolved itself into a Committee of the Whole, choosing Dr. Davis as Chairman.

The subject for discussion, as previously announced, was

CHOLERA.

Dr. SAYRE, of New York, opened the discussion. He considered that the disease could not reach here unless it was brought here; that it could not be generated here. It multiplies its ravages when filth and uncleanliness abound, and is generated in a sandy, level country, beneath a temperature of 128 degrees. There the decomposing animal and vegetable substances originate this peculiar poison. He believed that it accompanied the individual, and that it did not travel by atmospheric power. He thought that the government was responsible for permitting the disease to get into the land. A rigid, proper quarantine, universally adopted by the General Government in combination with the British Provinces, would, in his opinion, prevent its admission to our continent. We had no quarantine, rightly considered. The disease in 1849 did not originate in Baxter street, New York, but took its origin from an infected person who escaped from quarantine. The cabin passengers escape because the disease has not travelled 200 feet nor ten feet from the steerage to the cabin. He remarked that he did not believe in mysteries, but wished to understand facts in his own way. If the valuable information that he had obtained from Dr. Marsden were put into practical application by the General Government he believed that millions of money and millions of lives would be saved.

Dr. LINTON protested against the doctrines advanced that morning and evening. We had medical journals through which we could discuss this subject a long time before the cholera would get here, and a long time before quarantine could prevent its getting here. "Who can believe that cholera could have been prevented from coming here in 1849? I do not believe it is any more contagious than intermittent fever. I am certain that nine-tenths of the physicians of this country are convinced of this fact. I say to the citizens of New York, Baltimore, and Canada, you may have no fears of the cholera. If it comes it will arise in your midst. Cholera is not a disease (!!)" He did not believe that there was any truth in the doctrine of contagion. "Cholera breaks out in ships after they are six weeks at sea. I saw a case in St. Louis two months ago. Where did the Asiatics get it from?"

Dr. BELL, of Brooklyn, thought the facts of Dr. Marsden inconsistent with the results of observation. Dr. M. had traced it first from a brig in Liverpool. He did not say that cholera existed in Liverpool at the time. Dr. B. believed cholera can be traced to various places other than Asia. "If cholera is contagious, it takes various roundabout ways of making short journeys. It took an exceedingly roundabout way to the principal cities of Europe. Of the present epidemic, it is said the Mecca pilgrims first had cholera. The evidences I have collected are against strict quarantine. The passengers of the Atalanta were detained at quarantine; no cases occurred among the well passengers after they left the ship. Of all the things likely to originate cholera, none are equal to a crowded, filthy ship. None of the passengers or things of the Atalanta were taken to Ward's Hospital. I would protest against the endorsement of any restrictions against persons advised by Dr. Marsden. The detention of well persons can never protect us against any disease. Our protection is in our clean houses, for cholera often leaps over healthy residences. The action of the health officers at the New York quarantine has been fatal to well persons, and has tended to ward off investigation of the places where cholera originated."

Dr. JOHN L. ATLEE, of Pa., said that it was difficult to know the facts in large commercial cities. "There are a thousand avenues to such cities as New York and Boston; but in the inland districts we are more likely to reach a better observation of facts. In 1832 I was in the midst of cholera at Lancaster County Hospital, Pennsylvania. I believed that cholera and yellow fever were diseases independent of any idiomiasmatic conditions of the atmosphere. In July or August, 1854, a certain peculiar condition of the air existed. The water of the Susquehanna was very low, and the water of the basin very filthy, yet there was no cholera. There were, however, some cases of bilious and intermittent fever. One day a car of emigrants came from Philadelphia to Columbia; two or three of the passengers were ill, and were put upon the platform. Four gentlemen seeing them there at the point of death, conveyed them to a shed. In the next twenty-four or forty-eight hours not one of them was living. In two or three days the cholera prevailed in Columbia. In the Lancaster County Hospital the winds were from the south. We had no cholera. A few days after the cholera broke out in Columbia, an emigrant reached there afflicted with cholerine. Shortly after two or three cases of cholera existed. The same train conveyed the cholera to Pittsburgh. Passengers came to the vicinity of Lancaster at a place called Paradise. Their effects were sent to Lancaster in a high and healthy location. The relative who washed the clothes died of cholera. It is a contagious disease. Why did it not spread? Why did not small-pox spread? There is an atmospheric constitution favorable to the development of disease. The result of observations in Sweden was that it had been conveyed there by the clothes of sailors. I think Dr. Marsden is right and Dr. Sayre is right, and our friends in Philadelphia must come to the same conclusion if they wish to preserve that metropolis from the ravages of the cholera."

Dr. SAYRE said the quarantine law of New York, as now enforced, is a disgrace to civilization. Dr. Carnochan, himself, and others saw the cases on Ward's Island, and they all came to the conclusion that they were not cases of cholera.

Dr. BELL remarked that Dr. Geo. Ford insisted that the Ward's Island cases he treated were those of cholera.

Dr. SAYRE then quoted from Dr. Ford's official statement in the annual report of the Commissioners of Emigration, in which he (Dr. F.) stated on page 52, that

those "twenty-seven deaths were caused by *diarrhœa* and dysentery." This was the *official* statement of Dr. Ford.

Dr. MARSDEN said that cholera followed human travel. He adduced other facts to demonstrate its contagious character. It is infectious in person and personal effects. He urged the necessity of guarding against any communication between the infected and the well. Equanimity, cleanliness, and temperance were three great adjuncts to the quarantine.

Dr. JEWELL, of Pa., said: "I have been charged with disseminating cholera. I have done all I could to prevent its entrance to Philadelphia. Cleanliness and ventilation will do much to that end. We have been engaged at that during the past winter. I do not believe in quarantining healthy people. That would be disseminating the disease by giving it to the well persons on vessels where cholera existed. We had the epidemic in the summer of 1849 in Philadelphia. It began in four different portions of the city. The first case was at Richmond, the second at Eighth and Spring Garden streets, the third in Moyamensing. These were all in the centre of the city, except at Richmond, and remote from the Delaware. The filth produced the disease in Richmond and along the Delaware. In 1832 the first case was on the Schuylkill, in a canal boat that came down from the upland country. There had been no foreign arrival in Philadelphia. It came from a poisoned atmosphere. In 1849 no flies were living. In Wheeling the birds died. The doctrine of contagion is dangerous, and will deprive the sick of assistance. Small-pox does spread, and if we had not vaccination it would spread more than it does. Contagion and infection are distinct. Contagion is the principle communicating the disease from one person to another. It is not so with cholera. There were no cases of contagion in 1832 or 1849. No vessels arrived with cholera on board. They may have arrived after the disease appeared. I am sorry the resolution was introduced. Next year we will be better able to test the value of Dr. Marsden's information. The poison of cholera will increase rapidly by contact with filth. It is only by purification of the city that cholera can be prevented."

Dr LEE followed with some brief remarks sustaining the views of Dr. Marsden, and maintaining that it was contagious under certain circumstances. Certain neighborhoods of a very filthy character were not attacked until emigrants came there.

The Committee of the Whole rose, and the Association adjourned without further action.

THIRD EVENING, MAY 3.—ENTERTAINMENT BY THE CORPORATE AUTHORITIES.

The corporate authorities of the city gave an entertainment to the members this evening, at which were present all the notabilities of the city, including the principal officers and members of the City Councils. The entertainment was prepared in the most generous and munificent manner, and reflected infinite credit on the donors. Between four and five hundred gentlemen were present. The supper was called at nine o'clock. A band of music, stationed in the gallery, initiated the occasion with an appropriate air, and at intervals in the course of the evening performed all the national hymns and songs. After discussing the substantials of the bill of fare, the customary toasts were given by Dr. J. Faris Moore, toast-master, and suitably and eloquently responded to by gentlemen of the municipal government of the city, and the officers and members of the Association, the attention and laudations of the great assemblage being specially directed to the eloquent response made by Dr. N. Pinckney to the toast, "The navy of the United States and its medical corps." Other toasts were equally well received, and the interest of the supper was sustained until a late hour in the evening.

FOURTH DAY.—MAY 4.

The Association was called to order at the appointed time, 9 A.M., by the President. After which, the Minutes of the previous sessions were read by the Permanent Secretary, Dr. W. B. Atkinson, of Philadelphia.

Dr. Cox was, on motion, accredited as a delegate to the Foreign Societies.

Dr. GARRISH, of N. Y., offered the following, which was adopted:

Resolved, That all the members of this Association urge upon the Legislatures of the various States the great importance of making it compulsory that all marriages, births, and deaths be registered.

MEDICAL RANK IN THE NAVY.

The Naval Committee appointed at the last meeting of the National Medical Association having failed to report upon the subject of naval medical rank, it was moved by Dr. Cox that Surgeons Wm. M. Wood, Ninian Pinckney, and David Harlan, U. S. N., be appointed a committee to report upon this subject at the next meeting of the Association. Adopted.

Various amendments were next brought up and laid upon the table.

The reports of the various sections were then in turn called for, and adopted. They will be found in another place under appropriate headings.

Dr. HOLTON, of Vt., offered the following, which was unanimously adopted:

"*Whereas*, The author of the Essay, Dr. H. R. Storer, to whom the prize of $100 from this Association was awarded in 1865, refused to receive the amount thus awarded, consequently increasing the resources of the Association to that amount; therefore

"*Resolved*, That the thanks of this Association are hereby tendered to Dr. H. R. Storer for this display of liberality."

The Committee on Ethics appointed to report on the resolutions of the Montgomery Medical Society, recommended a reference of the whole matter to the Medical Society of that State.

Dr. HOLTON offered the following, which was lost:

"*Resolved*, That at the future meetings of this Association there shall be held two general sessions, one in the morning and one in the evening, unless otherwise ordered."

Dr. KING, of Pittsburgh, offered the following:

"*Resolved*, That this Association, approving of the system of quarantine proposed by Dr. Marsden, of Canada, as the most effectual means for preventing the introduction of cholera into this country, do earnestly recommend the propriety of its adoption at all our ports of entry, to the favorable consideration of Congress."

The House then on motion, after a little discussion, went into a Committee of the Whole, Dr. Davis being Chairman.

Dr. BELL, of Brooklyn, was granted the privilege of making a personal explanation of his statements in reference to cases of cholera on Ward's Island, and although he persisted in his original assertion, the Chair declared that the whole matter was, he presumed, well understood by the Association, there being only a different scientific opinion entertained by two different parties.

The resolution of Dr. King was then taken up, and after much discussion,

Dr. J. H. BURGE, of Brooklyn, offered the following,

which, after eliciting many remarks from Drs. Horton, Storer, Post, Lee, Pinckney (U.S.N.), Marsden, and Dr. J. Anderson (N. Y.), was on motion laid on the table. The following is the resolution:

"*Resolved*, That this Association appoint a Committee of Ten to memorialize Congress to the following effect: That whereas, in the opinion of many eminent physicians, the system of quarantine recommended by Dr. Marsden, of Canada, for protecting our country from Asiatic cholera, would prove effective; therefore, *Resolved*, that we earnestly petition the government of the United States to make an immediate and ample appropriation, and take all other necessary measures to test the utility of said system."

The Committee of the Whole rose and reported accordingly.

The President resumed his seat.

Dr. Cox moved that Dr. J. C. Tucker, of Nevada, be a member by invitation. Adopted.

Dr. Stokes offered the following as the report of the section on Psychology, which was accepted and referred:

"The section on Psychology unite in requesting that a committee be appointed to make a report at the next annual meeting on Insanity, and ask that Dr. J. Ray, of Providence, R. I.; Clement C. Walker, Massachusetts; A. B. Cabaniss, Mississippi; W. S. Chiply, Kentucky; John Fonerdin, Maryland, be appointed said Committee.

Clement C. Walker, *Chairman.*
Wm. H. Stokes, *Secretary.*"

The report of the Committee of the Whole in reference to the question of quarantine was then adopted by the Association.

DEATH OF PROF. D. L. MAGUGIN, OF IOWA.

Dr. Taylor, of Iowa, presented the following:

"*Whereas*, After a long and laborious life devoted to the practice of medical art and promotion of the interests of medical science, Dr. D. L. Magugin, of Iowa, has been called to the final rest of all good men:

"*Resolved*, That the Association, while deeply regretting the loss they have sustained, will ever keep alive the memory of his many virtues and professional worth, and commend the example of his untiring devotion to our common cause.

"*Resolved*, That a copy of these resolutions be furnished his family with sincere condolence."

Dr. Garrish, of New York:

"*Resolved*, That the members of this Association tender their heartfelt thanks to our professional brethren of Baltimore for the liberal, cordial, and satisfactory manner in which they have entertained us."

Dr. H. R. Storer offered his report as Delegate to the last meeting of Superintendents of American Institutions for the Insane, and presented the following for adoption:

"*Resolved*, That the Association recommend to the several medical and law schools of the country, the establishment of an independent chair of Medical Jurisprudence, to be filled if possible by teachers who have studied both law and medicine; attendance upon one full course of lectures from whom shall be deemed necessary before the medical degree is conferred.

"*Resolved*, That while this Association regrets that the Association of Superintendents of American Asylums for the Insane has not yet thought fit to unite itself more closely with the representative body of American physicians, it still is of opinion that such union is for their mutual and reciprocal advantage, and that it ought to be effected without further delay."

On motion, the above was adopted.

After the transaction of business of minor importance, the Association adjourned *sine die.*

The Meetings of the Sections.

SECTION ON PRACTICAL MEDICINE AND OBSTETRICS.

DISCUSSION ON DIPHTHERIA.

The section was organized by the appointment of Dr. Lake J. Tefft, of New York, Chairman, and Dr. W. B. Bibbins, of New York, Secretary.

Dr. H. D. Holton, of Putney, Vermont, Chairman of the Committee on Diphtheria, as it had prevailed in the United States, made a report by reading an elaborate and interesting paper. He gave a history of the disease from its first appearance in this country, more than a century since. He insisted that diphtheria should not be confounded with follicular tonsilitis and kindred affections; in fact, nothing should be dignified with the name that did not present the characteristic exudation, with swelling of the cervical glands, etc. Neither should it be confounded with scarlatina or croup. Tables were presented showing the fatal months, the proportion of deaths at various ages of the three diseases. The disease was divided into diphtheria simplex, diphtheria maligna or gangrenosa, and tracheal diphtheria. He entered at some length into the discussion of the sequelæ, stating that they were paralysis, rheumatism, and general cachexia.

After discussing the various plans of treatment, he divided it into local and general. Such mild cathartics should be used as the case seemed to require, although nothing like active purgation should be indulged in. Chlorate potassa should be given pulverized with an equal amount of sugar, a little placed in the mouth, and allowed to run down the throat, that the local as well as the constitutional effect might be obtained.

Sulph. quinin. and tr. ferri chloridi should be used as occasion required; also alcoholic liquors, either alone or combined with cinchona bark; wine whey, milk punch, and beef-tea were to be used to support the patient when a nourishing diet could not be taken.

The local applications should be such as would prevent the absorption of fluid portions of the exudation. For this purpose persulphatum ferri was recommended; also the following: ℞. Tr. ferri chloridi, chlorat. potassæ ãã ʒj; glycerine pure, ʒ ij. Misce. Either of these to be carefully applied with a soft brush. Externally, an infusion of hops in lye of wood ashes would be found the best for any hot fomentation.

The following deductions were made: 1st. That diphtheria has occurred as an epidemic from time to time from the first settlement of this country; 2d. That it is a distinct disease, on no account to be confounded with scarlatina or croup; 3d. That it is particularly a disease of childhood, athough it exempts no age; 4th. That it is communicable to that degree that it is the duty of every physician to separate the infected from those that are well, particularly in children; 5th. That it is a disease primarily affecting the blood, consequently the treatment to be effective must be not local but general, and of such a nature as to eradicate or neutralize the poison; such local treatment should, however, be used as will prevent the absorption of fluid portions of the exudation; 6th. That when the exudation has invaded the trachea, the only hope of saving the patient is in tracheotomy.

On motion of Dr. Ellsworth Eliot, of N. Y., the report was referred to the Committee on Publication.

Dr. King wished to take exception to the remark made in this paper that when the membrane is thrown off from the trachea the patient will almost always

get well. He had seen two cases, one a man and the other a child, in which the membrane had been thrown off and both had died. He could not believe that the cast-off membranes were ever re-absorbed. He stated that he had ceased to use local applications for anything more than their antiseptic effects; and for this purpose he thought that the solution of common salt was as good as anything else.

Dr. Gallagher, of Pittsburgh, Pa., expressed himself much pleased with the report. He regretted, however, that the author had made no reference to the use of alum as a local application. He had used that remedy with the happiest effects, and had more confidence in it than all the others. He had used also with great satisfaction the ordinary "hard cider," with a view of assisting the elimination of the morbid materials by the kidneys.

Dr. Worthington Hooker, of New Haven, stated that there was a great tendency in the profession to run into extremes in reference to treatment. He was not disposed to think that any disease could be successfully treated by following any one plan to the exclusion of others. The really rational plan was to follow all the indications in the particular case as they might arise. There were many marked distinctions between croup and diphtheria, but he chose only to refer to the want of that severe constitutional disturbance in the former which is never absent in the latter disease.

Dr. McCollum, of Vermont, stated he had seen 200 cases of the disease in his county within the last five years. He had seen three or four cases recover after the membrane had been cast off. He never used gargles except as disinfectants. As regards ice, he had noticed benefit from its use in a great many cases. He had also been in the habit of allowing his patients to inhale the vapor of acetic acid, and with marked benefit.

Dr. Gross, of Pittsburgh, stated that he had had a large experience in the treatment of diphtheria in his district, and had come to the conclusion that the best means of treatment consisted, first in the use of calomel as an antiphlogistic, followed by the very free use of chlorate of potash. He had seen 400 or 500 cases of the disease since he instituted this plan of treatment, but had not met with a single fatal case. He also, in conjunction with the foregoing remedies, made use of the solution of nitrate of silver (20 grains to the ounce) as a local application, as well as saturated solutions of alum and lemon-juice on crushed ice.

Dr. Bibbins, of N. Y., stated that some time since the question was asked him by Prof. A. Clark—What was the number of cases of diphtheria which he had met with in dispensary practice? Dr. Bibbins, before he was prepared to answer such a question, wished to know from Dr. Clark what he understood to be true diphtheria—whether the essential symptoms of the disease were considered to be adenitis, false membrane, fever, and depression of the vital powers. "Of course," replied Dr. Clark, Dr. A. Jacobi, who had studied this subject very thoroughly, has published the fact that these symptoms are always essential to the disease. A certain proportion of cases must be distributed to each individual; and such being the fact, the could not but believe that when gentlemen report such a large number of cases as occurring in their practice they do not take into account the necessary symptoms of diphtheria; that a great many report cases which they call diphtheria, which other practitioners are not willing to admit as such. He remarked that the average mortality of true cases of diphtheria among dispensary patients was thirty-three per cent., and did not suppose that under any treatment this mortality could be much decreased. Dr. A. Clark had reported the same rate of mortality. Dr. Bibbins was led to believe, from the cases which he had met with, that the tonic and supporting plan of treatment was the only reliable one.

Dr. Shumway, of N. Y., had used with great benefit, as local applications, the nitrate of silver stick, the chlorate of potash, and the chlorate of ammonia. He apprehended that the great difficulty with many patients that were convalescent was not that they did not get medicine enough, but that there was paralysis of the throat which prevented them from swallowing them. In those cases he had used nutritive injections into the stomach with very good results.

Dr. Davis, of Ill., spoke in this connexion of blood-poisoning in many diseases, diphtheria among the rest. He thought that there was yet a great deal to be learned with reference to the true pathology of these so-called blood diseases. The query had arisen with him whether diphtheria really depended primarily upon a poison in the blood, or whether the altered condition of the blood itself, instead of being primary, was itself a secondary consequence of a prior change in the properties of the organized tissues of the human body. He discussed this question at considerable length, showing the probability that there might be such a fundamental error in nutrition, as that assimilation or disassimilation was so interfered with that the blood was poisoned in consequence.

Dr. Hewitt remarked that he had great faith in the solvent power of both alum and chlorate of potash on the diphtheritic membrane. He had taken pieces of the membrane that had been separated, and had dissolved them entirely in solutions of these salts. His treatment was to take a glass tube, pass it back into the fauces, and inject one or other of the solutions directly against the affected parts.

Dr. McIntyre, of Concord, N. H., was of the opinion that if there was any error in nutrition, it was secondary to the formation of the membrane in the throat, which by obstruction to the respiration interfered with the proper oxidation of the blood. This he considered to be the starting-point of the constitutional trouble. For the purpose of aiding the system in the elimination of the poison in the later stages of the disease he had used colchicum seed, guaiac, and nitrate of potash, with much satisfaction.

Dr. Taylor, of Iowa, did not think that there was any good to be attained by suggesting this and that remedy for a disease which had existed in every section of the country; for different remedies must be used in different localities, and he thought the best guide for any general plan of treatment was to be found in a proper, thorough, and enlightened view of the pathology of the disease.

The meeting then adjourned.

SECOND SESSION.

Dr. Lake J. Tefft in the Chair.

The second meeting of the Section was held at the Dental College, corner of Hanover and Lombard streets, on Wednesday, May 2, 1866, at 3.45 P.M.

The minutes of the last meeting were read and approved.

Dr. Jas. J. Levick, of Philadelphia, read the "Report of the Special Committee on Spotted Fever."

On motion of Dr. Henry D. Holton, of Putney, Vt., the report was referred to the Committee on Publication, with a recommendation for its publication in the Transactions of the Association.

INHALATION OF NEBULIZED FLUIDS.

Dr. J. Solis Cohen, of Philadelphia, read a paper entitled "Remarks on the Inhalation of Nebulized Liquids, and their Topical Application to Inflamed and Ulcerated Surfaces."

The reader stated that his design was not so much to present a review of the knowledge of the profession on these topics, or to bring forward any of his peculiar views, as much as to give a resumé of the results thus far obtained from recent experience, with a view of eliciting upon a subsequent occasion a valuable paper on the whole subject of the Therapeutics of Inhalation, which should embody the experience of a number of observers, and furnish the profession with authoritative data for their general investigation, inasmuch as the literature on this subject, especially in this country, was very meagre and unsatisfactory.

The paper stated that the idea of treating diseases of the respiratory organs by inhalation, which should bring remedies directly in contact with diseased surfaces, was as old as the healing art itself; for what was more natural than to imitate the entrance of the vivifying breath of life in its access to the economy? The records of classic Greece and Rome show that this principle was taken advantage of in the inhalation of volatile substances, and in the residence of patients upon the seashore, and in the neighborhood of volcanoes. This method of treatment fell into disuse, and was again resorted to many times, and had fallen into permanent neglect for a long period, until the discoveries of oxygen leading to further chemical research, and the promulgation of the exhilarating effects following inhalation of the nitrous oxide gas, again directed attention to the subject of inhalation as a remedial agent. Then the ammoniacal exhalations from cattle yards, stables, etc., became largely employed in many affections, until too extended empirical application to all the ills of life meeting with failure, led the whole system into disuse, even for these affections for which it was originally intended. The discoveries of the properties of chlorine, iodine, etc., of the effects of the smoking of opium among the Chinese, led to the employment of similar substances; and the whole series of narcotics, resins, and all substances producing vapor became employed in this manner.

Observations of the diseases affecting workers in minerals, metals, etc., and the post-mortem revelations of the scalpel, proving the entrance of particles of dust into the lungs, led to the therapeutic employment of powders by inhalation.

After some other general remarks of a similar nature, the paper went on to relate that within a few years a new method of presenting *liquid substances* for inhalation *as such*, had become much employed in Europe, and seemed to promise an extensive field of success in the treatment of the whole class of pectoral troubles.

Every one is familiar with the effect of a stream of water directed upon the side of a house, how a large portion of the volume of water is directed back in a shower of small streams, or coarse spray. In certain bathing establishments in Germany, many liquid applications are made on this principle to the surface of the body in the treatment of affections of special organs, and of the general system likewise. Streams of the medicated liquid are forced against metallic plates on the walls of the bathing apartments, and fall over the desired surfaces in this shower or coarse spray.

It having been noticed that amelioration of concomitant chest affections seemed to follow this exposure for other purposes, patients were sent to these establishments to respire the air thus impregnated. The beneficial results obtained at the Inhalatorium of Dr. Auphan, of Eaux-les-Bains, established in 1849, led to similar establishments elsewhere, until finally, Sales-Girons, who in connexion with Flubé, had in 1856 erected an inhalatorium at Pierre-fonds, conceived the idea of constructing on this principle a portable apparatus which could be employed by patients at their residences, and thus admit of much wider application. Sales-Girons exhibited an instrument of this kind to the Academy in 1858. His apparatus consisted of a condensing syringe, which forced a very fine stream of liquid against a convex metallic button, converting it in deflection into a very finely divided spray, having much the appearance of a dense fog or mist, the separate particles of which, suspended as they are for a time in the atmosphere, playing around much like the dust observed in a sunbeam, can be drawn into the lungs by inspiration.

The paper referred to several of these apparatus, especially the modification of the tubes of Bergson, and the employment of steam by Siegle, in lieu of the compressed air, and stated that experiments upon living animals proved the entrance of these particles into the air-cells; though for various reasons, the spray striking against many surfaces during its ingress, its dissipation into a much larger volume than could be received into the mouth, etc., but a small quantity of the liquid thus nebulized (the writer thought not more than twelve per cent.), could reach the smaller bronchial ramifications.

The writer thought that the application in this manner of liquid substances of known strength directly to the diseased surfaces would prove more prompt in effect, whether for good or ill, than when the entire current of the circulation became the vehicle of communication, perhaps affecting the general system when not desirable. The mucous membrane of the lungs is quick to absorb, secretes no chemical product to modify chemical medicines, and has no temporary ingesta to interfere with the direct action of remedial agents applied to it.

Although the results thus far obtained are far from being positive, and many of them are unsatisfactory and negative, still they are such as to justify careful research into this new method of medication.

Some conclusions were then given as the results of recorded experience; the results of the writer's personal experience and observations, and the results of extensive experiments, carefully conducted by Dr. J. M. Da Costa, at the Pennsylvania Hospital, as well as those obtained by the latter named gentleman in his private practice.

A few remarks followed as to the manner of preparing medicines for employment in this way, and their application when different parts of the air-passages were to be medicated.

Allusion was made to the employment of this system of nebulization for local applications to inflamed and ulcerated surfaces on the exterior of the body, and a certain distance within the various cavities, and an instrument devised for this purpose was exhibited, to demonstrate that in a second or two a layer of a caustic or other solution, many times more delicate than any film which could be deposited by the slightest touch of a hair pencil, could be directed upon an ulcerated or inflamed surface, whether of large or small surface. A continuous application of course can be kept up when desired, and in this connexion the method was recommended for the production of local anæsthesia for minor operations in surgery—a subject at present exciting a good deal of attention, and brought to the notice of the profession by Dr. B. W. Richardson, of London.

On motion, the paper was referred to the Committee

on Publication, for publication in the Transactions of the year; but at the request of the writer the motion was modified to call for the appointment of a special committee to report on the "Therapeutics of Inhalation" at the next annual meeting of the Association.

On motion, the paper was received.

Dr. J. E. Clawson, of Delaware, moved that the Section appoint a Special Committee on the Therapeutics of Inhalation, to consist of three members, and that the paper of Dr. J. S. Cohen, just read, be referred to that Committee. Carried.

The Chairman appointed as such Committee:

Drs. J. Solis Cohen, Philadelphia; Dr. J. M. Da Costa, Philadelphia; Dr. L. Elsberg, New York.

Adjourned.

THIRD SESSION.

The Section met at Concordia Hall, on Thursday, May 3, 1866, at 1.45 P.M.

In the absence of the Chairman, Dr. Ellsworth Eliot, of New York, was elected Chairman *pro tem.*

The minutes of the last meeting having been read and approved, the Section adjourned *sine die.*

SECTION ON MEDICAL JURISPRUDENCE PHYSIOLOGY, AND HYGIENE.

FIRST SESSION, MAY 1, 1866.

The session was organized at Concordia Hall, 3 P.M., May 1, by electing Dr. Wilson Jewell, of Pennsylvania, Chairman; and Dr. A. N. Bell, of N. Y., Secretary.

REPORT ON DISINFECTANTS.

The first paper called up was the Report on Disinfectants, which was read by Dr. E. M. Hunt, of New Jersey, chairman of the committee. On motion to refer it to the Committee on Publication, it was brought under discussion by Dr. T. Antisell, who, though he considered the report in many respects an able one, did not regard it sufficiently elaborate, particularly in the special utility of dry heat for the destruction of fungous organisms resulting from the exposed excreta of persons sick of the cholera. While he regarded the most scrupulous cleanliness and care in the removal as speedily as possible, of all accumulations of whatever kind from such persons; yet he thought that here disinfectants had their chief application, and that if means could be devised for the thorough application of heat to all such accumulations, the poisonous quality for the diffusion of the epidemic would be destroyed. Of ozone and other disinfectants dwelt upon by the committee, he thought them of much less importance; and that they occupied too large a space in the report, to the exclusion of that which he considered so much more useful.

Drs. Green, C. A. Lee, E. R. Squibb, Jas. Hibberd, took issue with Dr. Antisell as to the province of the committee in the report, regarding it in the main as sufficiently elaborate, and more strictly in accordance with what reports for the Transactions of the Association should be, than if it went into collateral subjects.

Drs. Hunt and Bell defended the report on the ground that it was necessarily a chief effort on the part of the committee to present a resumé of such facts as had from time to time been brought to notice in the history of disinfectants; and that it would not only be out of the province of the committee, but quite impossible, to report upon the special indications for the application of disinfectants to the various supposed causes of disease, such as the one presented by Dr. Antisell.

The motion to refer the paper to the Committee on publication was then put, and the paper was so referred.

On motion, it was voted that Dr. Antisell be requested to prepare a paper for the next Session of the Association, *On the Causes of Epidemics.*

INFLUENCE OF ELECTRICITY ON EPIDEMICS.

The next paper taken up was the report of a special committee on the Influence of Electricity on Epidemics, by Dr. Squire Littell, of Philadelphia.

This report was presented to the Section on Hygiene at the last session of the Association, but owing to its length was not all read. It was deferred for the time, and owing to the supposed absence of the author from the country, the paper was omitted from the Transactions. Members of the section present who had carefully examined the paper, spoke of it in high terms, and as being well worthy of publication in the Transactions. But as it was a long paper, and had already been examined, and in part at least discussed, they did not deem it worth while to again occupy the section with its consideration.

On motion, it was referred to the Committee on Publication. The section then adjourned.

SECOND SESSION, MAY 2.

THE USE OF PERMANGANATE OF POTASH.

Dr. B. F. Craig read a paper on the use of permanganate of potash for the purification of water, especially during the prevalence of epidemic cholera.

The points of the paper were presented by Drs. C. A. Lee and E. R. Squibb, namely, that the disinfecting agent in the use of the permanganate of potassa and allied substances—was ozone. According to the remarks of Dr. Squibb, the power of disinfecting substances generally, excepting some, such as charcoal, which are absorbents, can be measured in a certain degree by the facility with which they give out or abstract oxygen. The paper under discussion was defective, in that the author assumed that the organic matter present in nature is the cause of cholera; and also that he took no note of the deposit of carbonate of potassa that would take place even to a mischievous degree in the use of the remedy. Yet, upon the whole, the paper should be regarded as a contribution to the important subject of disinfectants. It was, on motion, voted to commend it to the Committee on Publication.

COMPULSORY VACCINATION.

Compulsory Vaccination was presented as a subject of discussion by Dr. A. N. Bell, chairman of the committee on that subject. While he regarded the literature of *vaccination for the profession* exhausted, he considered the field still large for the purposes of the committee, namely, the diffusion of information among the people; and his chief object in presenting the subject in this manner, instead of by formal report, was to elicit the expression of the Section as to the best means of diffusing information. In the Southern States, especially, a new field was now open for reaching a large number of persons requiring vaccination and revaccination, in order to put a stop to the ravages of small-pox, and he hoped that some of the gentlemen present would be able to assist the Committee in devising means for such a purpose.

Dr. Wm. M. Charters, of Georgia, described the terrible ravages of small-pox among the negroes at Savannah on the arrival of General Sherman's army,

and attributed it, not to any want of a correct appreciation of the utility of vaccination, but to the *imperfect manner* in which vaccination was performed.

It was the practice, to a great extent, to commit this subject to unprofessional persons. In the Southern States, especially, masters and overseers thought themselves equally competent with physicians for so simple an operation. But the result justified the conclusion that the disease they communicated was frequently a *vaccinoid* sore only, and not a vaccine vesicle. The operation was performed more with reference to making a *sore* than anything else, and that was regarded as the prophylactic, but exposure proved to the contrary. In other cases, however, and these were by no means insignificant, vaccination had been well performed and it had taken perfectly, but the susceptibility to it and to small-pox not having been exhausted, the individual was still liable. He therefore advocated exhaustive vaccination to begin with; let the operation be repeated until it ceases to produce an impression, and he believed susceptibility to small-pox would be destroyed for the whole lifetime of the individual. To accomplish this, he believed in the necessity of compulsory laws, requiring every person to be thoroughly vaccinated, under such penalties as would insure compliance.

Drs. Lee and Hibberd referred to the ineffectual State laws on the subject, and also to the no less ineffectual laws of England, and thought that something more was required.

Dr. Nebinger did not believe that such laws could ever be made effectual in this country, and thought that the work of the Committee to diffuse information—which, so far as vaccination without danger, or a belief in its prophylactic powers was concerned, was effectual—only now need be pressed to the equal necessity of *re*vaccination. On the necessity of *re*vaccination, he knew that there were yet many physicians and a multitude of other people needing information. He cited several cases in illustration. He hoped that the Committee would be continued, and that every member of the Section would do his utmost to press upon the attention of the profession and the public the facts that had been already presented in the last year's report.

Dr. Toner expected much good to result from registration, a subject that was now attracting much attention; and when it was so far advanced that correct information could be gained as to who was and who was not vaccinated, he thought that one great obstacle would be removed—the necessity of universal vaccination would be so much more apparent that the purpose of the Committee would be much facilitated.

On motion, it was voted that the Section recommend that the Committee be continued.

Dr. C. A. Lee introduced *leakage of gas pipes* as a subject well worthy of the consideration of the Section and of the Association.

On motion, it was voted that Dr. J. C. Draper, of New York, be requested to prepare a report for the next session of the Association on the leakage of gas pipes.

THIRD SESSION, MAY 3.

ON ALCOHOL AND ITS RELATIONS TO MAN.

This paper, on Alcohol and its Relations to Man, by Dr. Gerard F. Morgan, of Maryland, was presented and in part read by Dr. Dunbar, member of the special Committee with Dr. Morgan to present a report upon this subject.

After some discussion, it was, on motion, voted, that the report presented by the Committee on the subject be referred to a new committee, to report at the next session.

Dr. Dunbar of Maryland, Dr. T. Antisell, D. C., and Dr. N. S. Davis, Ill., were nominated, and the request referred to the Association.

Adjourned *sine die*.

SECTION ON SURGERY.

Dr. A. C. Post in the Chair; Dr. J. H. Burge, Secretary.

FIRST SESSION, MAY 1.

At a meeting of the Surgical Section of the American Medical Association, held at the Dental College, corner of Hanover and Lombard streets, Baltimore, Md., May 1, 1866, at 3 o'clock P.M., Dr. Alfred C. Post, of New York, was elected Chairman, and Dr. J. H. Hobart Burge, Secretary.

There being no report of the papers which had been referred to this Section, a motion was made to adjourn, to meet again in the same place at 3 o'clock P.M. on Wednesday, 2d instant. Carried.

SECOND SESSION, MAY 2.

The Surgical Section met at 3 o'clock, pursuant to adjournment.

Dr. Post in the Chair.

Dr. J. S. Cohen, of Philadelphia, offered a paper by Dr. J. M. Boisnot, of the same city, on Fracture of the Patella, and exhibited an apparatus for its treatment. On motion, the paper was referred to the Publication Committee.

Dr. J. S. Cohen read a paper on Vocal Paralysis, with Aphonia, cured by the application of stimuli and by the use of what he called vocal gymnastics. The paper was referred to the Publication Committee.

Dr. J. J. Woodward, U. S. A., chairman of Committee on Causes and Pathology of Pyæmia, presented a very elaborate paper. The Section listened for nearly an hour, when several members expressed their great interest in the communication, but owing to the shortness of the session it was voted to refer it at once to the Publication Committee, with the recommendation that it be published in full.

Dr. Woodward also presented some very beautiful photographs, illustrative of the success attained in microphotography. In these specimens microscopes of very differing powers had been used.

Dr. A. C. Post, of New York, exhibited an original instrument for the bilateral operation of lithotomy.

Dr. J. C. Hutchison, of Brooklyn, said he had used the instrument with satisfaction, and therefore moved that Dr. Post be requested to furnish a description for publication in the Transactions of this Association. Seconded and carried.

Dr. Post presented, also, a new instrument for making applications to the os uteri. It consists of a straight and rather slender pair of forceps, made short for convenience of carrying, but when in use elongated by a handle screwed thereupon. By a slide upon the forceps the blades are approximated and made to close firmly upon any object. The Doctor observed that it might be used either as a forceps to hold any substance which the operator might wish to apply, or to remove extraneous substances from the vagina.

Dr. Post also presented a small instrument to facilitate the introduction of insect pins for sutures; some of these pins being so delicate that without such guide they bend and become useless. The instrument consists of a sharp-pointed, slightly-curved, grooved needle—the groove being in its long axis. In using, the needle is to be introduced to the very position which

the pin is intended to occupy. The pin is then guided by the groove, carried to its place, and held there while the needle is withdrawn in the backward direction.

Dr. H. R. Storer, of Mass., presented an instrument which he called "The Clamp Shield," designed by him to lessen the dangers of extirpation of the uterus by abdominal section, and read a paper on the subject, which was referred to the Committee on Publication.

FOUR OPERATIONS FOR LITHOTOMY ON SAME PATIENT.

Dr. J. C. Hughes, of Iowa, reported a case of vesical calculi, in which he had four times performed the bilateral section in the same patient. When the second operation became necessary, lithotrity was attempted, but failed. At the time of the third operation the patient was much emaciated and very feeble, yet he recovered nicely. In less than another year the fourth operation was demanded, when twelve calculi were removed; drawings of these accompanying the papers. Dr. Hughes spoke highly of the bilateral as compared with the lateral operation, having performed it twenty-one times with the loss of but a single patient.

The paper was referred to Publication Committee.

Dr. Hughes also spoke of a new method of operating upon limbs which were both curved and shortened. He said Barton's mode was to saw out the V-shaped portion of the bone on its convexity; but as Dr. Hughes wished both to straighten and lengthen the limb, he cut down on the convex side, and passing a chain-saw around the bone, made a partial section on the side of its concavity, and then used such manual force as was necessary to straighten it—thus leaving a chasm to be filled instead of losing an additional inch.

It was moved by Dr. H. R. Storer, of Mass., that Dr. Hughes be requested to write a description of the operation for insertion in the Transactions of this Association.

On motion, the section adjourned to meet at three o'clock P.M. to-morrow, May 3d, in the same place.

THIRD SESSION—MAY 3.

The Section met at the appointed hour. Dr. Post in the chair.

Dr. Lewis A. Sayre, of New York, moved that Dr. Post be requested to furnish for the Transactions of the Association a description of his grooved needle, previously exhibited. Dr. Sayre thought the thanks of the profession were due to Dr. Post for this unpretending but eminently useful instrument. Carried.

Dr. Sayre then read a paper on Luxation of the Femur into the Ischiatic Notch, of Nine Months' Standing, reduced by manipulation.

Referred to Publ cation Committee.

Dr. Dewit C. Enos, of Brooklyn, read a paper on the Intra-oral Method of operating for Removal of Lower Jaw.

Referred to Publication Committee.

Dr. George M. McGill, U.S.A., presented a paper advocating the adoption of a periosteum flap in all amputations in the continuity—including a report of five cases. The Dr. exhibited casts of two of the stumps after these operations, which were beautifully oval.

Paper referred to Publication Committee.

Dr. Enos thought the suggestion of Dr. McGill a good one, but in one case in which he had made a periosteal flap in his own practice there had been such a reproduction of bone as to necessitate a second operation.

Dr. Louis Elsberg, of New York, read a paper On the Means of Diagnosis at present available in Diseases of the Larynz, with full directions for the use of the Laryngoscope.

On motion, referred to Publication Committee.

Dr. B. J. Raphael, of New York, stated that Dr. Montrose A. Polk, of ——, made a partial report in 1860, on ———, and moved that the committee be continued. Carried. On Motion of Dr. Raphael, Dr. E. Krackowizer, of New York, and Dr. J. S. Cohen, of Philadelphia, were appointed a Committee to report on the subject of Local Anæsthesia. Dr. Post made some remarks on the subject of partial anæsthesia and the coöperation of the intelligent patient with the practitioner.

On motion of Dr. B. J. Raphael, Dr. Henry D. Noyes, of New York, was appointed a committee to report on the influence upon vision of the abnormal conditions of the muscular apparatus of the eye.

On motion of Dr. E. Krackowizer, of New York, Dr. Raphael was appointed a committee to report on the comparative merits of the different operations for the extraction of vesicular calculi.

Whereupon the Section adjourned *sine die*.

Medical News.

PROGRESS OF THE CHOLERA.

Grand Duchy of Luxembourg.—According to the Wietz, Grand Duchy of Luxembourg (April 5th), correspondence of the *London Times*, the greatest alarm prevails throughout the district, owing to the dreadful ravages made by cholera at Diekirch and the surrounding villages. Between the evening of the 1st and the morning of the 3d, the deaths amounted to one hundred out of a population of only two thousand souls. All the means hitherto employed to arrest the progress of the epidemic have been in vain. To purify the air, large fires have been made in the streets, and the houses inundated with chloride of lime, but without effect. All who can are leaving the place. The disease made its first appearance at Clemenci, near Arion, to which village, according to report, it was brought by a workman from Paris. It soon spread to Mamer, Eich, Dommeldange, Weimerskirch, Luxembourg, and Diekirch, apparently following the water-courses.

On the same subject, the *Courrier du Grand Duché de Luxembourg* has the following:—The cholera has been raging at Diekirch for some days past with unusual violence. After carrying off numerous victims among the working class, it is now choosing its prey among the wealthier inhabitants.

Portland, Me.—A Portland, Me., letter of the 24th ult., states that "there have been no more cases of cholera than the two reported by the press. One of these was that of an escaped passenger from the Quarantine at McNab's Island, N. S., and the other is a matter of controversy."

Haverstraw, N. Y.—Dr. J. H. Sullivan, Physician to the Board of Health, Haverstraw, N. Y., in a letter to the *N. Y. Herald* of the 24th ult., contradicts the statement that cholera had recently manifested itself fatally in that village.

Washington, D. C.—Dr. Marsden, of Quebec, says that the cases at Washington are not Asiatic or epidemic cholera, and will not spread.

New York City.—The first pronounced but probably the second case in reality of cholera, occurred in this city on the 30th ultimo. We are led to be thus qualified in our statement, since the fatal case in Delancey street, reported some weeks ago by the physician in

attendance, although still in controversy, had symptoms equally well marked. But be this as it may, the case to which we have alluded in the first paragraph, occurred in the person of an industrious Irishwoman, aged thirty-five years, who occupied, in common with two other families, a frame house, not noted for the salubrity of its immediate surroundings, upon the east side of the Third Avenue, between 92d and 93d streets. The building is situated upon a high bluff, swept by breezes from off Ward's Island, in which certain, or according to some observers, merely alleged choleraic cases occurred during the period extending from the latter part of last November to the close of the succeeding month. According to the report of the *Daily Times*, this woman, "just before she became ill, had with her own hands cleaned out the privy belonging to the house, and had used the contents as manure in planting potatoes in the garden." At noon, although feeling somewhat indisposed, she partook of a frugal dinner, complained of pains about 3 P.M., was in a state of collapse at 4 P.M., and died on the 1st inst., at 11 A.M. An autopsy revealed a general healthy condition of all the organs except the stomach and intestines, in which "the rice-water secretions" were abundant.

Joshua Jenkins, aged seven months, a son of the above, died at the Battery barracks, on the 4th instant, of the same disease.

Another case made its appearance, on the 2d instant, at 115 Mulberry street, in a five-story, double tenement house, through the centre of which runs a hall four feet wide. The rooms measure fifteen feet by eleven, and the bedrooms attached, each about eleven by seven, with one small window apiece. These windows, on the side of the house adjoining, No. 113, open into a recess seven feet by two feet, which exists between the two houses. "This recess," to quote the language in full of Dr. Southack, from whose report we have condensed the above description of the premises, "is in a most filthy condition. Slops and offal from both 113 and 115 are freely thrown there, and the inhabitants bitterly complain of the odor arising therefrom. The lower windows on the side adjoining 117 Mulberry also open into a recess between the two houses. This is also in a vile condition; so much so that the inhabitants in some of the rooms have nailed up the windows permanently to escape the stench."

Add to this the custom borrowed from untutored animals confessedly low in the scale, of depositing fæces in the halls, and the picture of this haunt of the lowly may be pronounced complete.

Thus the patient, Kate Dooley, aged 35 years, who had been whitewashing on the 1st throughout the entire day, after a repast upon some bread and meat at 3 P.M., was surrounded by the very influences to invite the vomiting and purging which seized her the next day at 2 o'clock A.M. She, however, rapidly recovered.

Efficient sanitary measures have been adopted to arrest the spread of the disease, which, in these instances at least, is not traceable to any violations of quarantine laws.

Overloading Passenger Ships.—Mr. Washburne, U. S. Representative from Illinois, has given notice to the House that the Committee on Commerce have prepared a very important bill in regard to overloading passenger ships, considered in its relations to the question of cholera.

Changes and Appointments in the Metropolitan Health Board.—Dr. Stephen Smith has been appointed Hospital Superintendent of the district. Dr. Chas. McMillan, late Surgeon U.S.V., has declined the position of Chief of the Barracks Hospital, recently tendered him. Dr. Chas. W. Packard, promoted from a clerkship to an inspectorship, vice Dr. Alba Blaisdell, resigned. Dr. Thomas F. White, elected clerk, vice Dr. Packard, promoted. Two Homœopathic practitioners have also been elected clerks, agreeably to the petition of the New York County Homœopathic Medical Society. They are to have the exclusive medical attendance upon one-fourth of the patients expected to occupy the Barracks Hospital, and one-half of those admitted into the Five Points Hospital.

New Hospital at Hoboken, N. J.—A new four story and commodiously arranged hospital has been opened at Hoboken, N. J., under the auspices of the "Sisters of the Poor," at a cost of thirty thousand dollars. It will contain one hundred beds, and be supported by charitable donations. All the physicians in Hoboken have volunteered their professional services.

Wisconsin State Hospital for the Insane.—The Trustees of the Wisconsin State Hospital for the Insane have invited proposals for enlarging the State Insane Asylum, the work to be completed by the 1st of July, 1867. This is the asylum for building which, on so large a plan, Governor Barstow was so severely censured by his political enemies.

Sanitary Matters at Halifax, N. S.—The municipal authorities of Halifax, N. S., have designated Lawler's Island a Quarantine Station, and have ordered the burning of the infected bedding, clothing, and other débris thrown overboard from the England, and found floating in the waters of the harbor.

Magnesium.—Magnesium is made in Boston from dolomite or magnesian limestone, by the Sonstadt method. The actinic power of this metal is 1-36th that of the sun, and the intensity of the light is 1-525th that of the same luminary. In consequence of its expensiveness, various substitutes have been proposed by photographers, among which the following mixture seems to have found favor: 24 parts of well dried and pulverized nitrate of potash, 7 of sulphur, and 6 of red sulphide of arsenic. It is claimed that this combination has as great actinic power as magnesium, though not so suitable for indoor use on account of the odor.

Sulphate of Quinine in Photography.—The window of a photographer's "dark room" may be painted with a mixture of an acid solution of sulphate of quinine in dextrine or gum arabic. The mixture should be applied on a sheet of paper, and this placed on the glass, and it is said no actinic rays, even on the brightest day, can pass a window so prepared.

Speculations Regarding the Sun and Earth.—Prof. Thomsen, of Copenhagen, assigns to the sun's heat, supposing it to be maintained by the fall of aërolites, a limit of 300,000 years, and to the period of the cooling of the earth from universal fusion to its actual state, 98,000,000 years. These calculations are the lowest given by any mathematician.

Dr. Herman Guleke, Assistant Physician to the Emigrant Hospital, Ward's Island, resigned his position on the 2d inst.

Dr. Philo G. Rockwell, of Waterbury, late Surgeon of the Fourteenth Connecticut, has been appointed Surgeon-General on the staff of General Hawley, the recently elected Governor of Connecticut.

Vital Statistics of Great Britain.—The Registrar-General of England states that for one week the births registered in London and twelve other large towns of the United Kingdom, were 4,419; the deaths 3,506. The annual rate of mortality was 30 per 1,000 persons living. In London, the births of 1,175 boys and 1,099 girls—in all 2,274 children—were registered in the week. In the corresponding weeks of ten years, 1856–65, the average number, corrected for increase of population, was 2,072. The deaths registered in London during the week were 1,574.

The Hydrate of Lime.—Liebig suggests that, in close rooms and on shipboard, deficient ventilation may be compensated by the use of hydrate of lime. Eighteen or twenty pounds of slaked lime will absorb thirty-eight or thirty-nine cubic feet of carbonic acid gas, which would be immediately replaced by an equal volume of fresh air entering through the crevices.

The Cretinism Theory.—M. Saussure's theory that cretinism did not exist in places 1,000 metres (or 3,280 English feet) above the level of the sea, was disproved by the Sardinian Commission, who found numerous cases in localities elevated 1,600 metres (or 5,248 feet) above the sea. In one village of this elevation, ninety cases of goitre and cretinism were found in every 1,000 of the population.

The Iridoscope.—At the last sitting of the Academy of Sciences at the Institute of France, Dr. Jules Cloquet presented a very interesting optical instrument called a "Iridoscope" by its inventor, M. R. Houdin, and by means of which the spectator may see deeply into the interior of his own eyes, and follow the movements which take place during the process of vision. The Academy referred the instrument and the paper which accompanied it to MM. Becquerel and Foucault for examination.

The New Metal "Indium."—Fresh sources have been discovered of the new metal indium. Prof. Schrotter communicates to the Vienna Academy that Dr. Kachler, a pupil of his, has found it in the zinc blende of Schonfeld, near Schlaggenwald, where this mineral occurs associated with tin ore and other minerals in a bed of steatite, in such quantity that a few grammes of this mineral yield an appreciable amount of this substance. The blende is roasted, and then dissolved in sulphuric acid; on treating this solution with metallic zinc, the indium and some traces of other metals are precipitated, from which it is afterwards separated.

St. Vincent's Hospital, Dublin.—The Managers of St. Vincent's Hospital, Dublin, Ireland, have purchased the splendid residence known as Lyndon Castle, Blackrock, for the purpose of converting it into a sanatorium, to which they will send the convalescent patients to enjoy the benefit of country air, sea-bathing, etc., previous to returning to their homes. This is the first sanatorium ever established in Ireland.

Aluminate of Soda in Soap-Making.—A Philadelphia company are now using, instead of caustic soda, aluminate of soda for soap-making.

Dr. John H. Slayter, who volunteered his services in connexion with Drs. Garvie and Gossip, in the capacity of Health Officer upon the occasion of the arrival of the cholera ship England, at Halifax, N. S., died of cholera, April 17th, after an illness of twenty-four hours. His remains were interred at the Quarantine Station, McNab's Island, on the succeeding day. The House of Assembly have unanimously voted $2,000 to his widow, accompanied with encomiums on the courage and devotion of the deceased in risking his life for the preservation of others. The monument proposed to be erected to his memory by the people of Nova Scotia, will occupy a conspicuous point on McNab's Island.

Dr. Benjamin Vreeland, Surgeon U.S.N., with rank of Lieutenant-Commander, according to recent advices, died on the Coast of Africa, on board the sloop-of-war Kearsarge. Date of death not given. Since the above was in type, we have learned additional particulars from a letter to the New York *Herald*, dated Madrid, April 24. According to this authority, "the first victim of the dread disease (yellow fever) was the amiable, skilful, and accomplished surgeon, Dr. Vreeland, who expired after an illness of five days, during which time he was unable to prescribe for a single fellow-sufferer."

Another letter from the commander of the sloop is in this likewise quoted to the effect that "the fever made its appearance on board on the 15th of March, immediately after leaving Sierra Leone."

Cholera and a bad Odor from the Mouth.—Under this heading a writer in *The Dentist* (or *Zahnartzt*), Leipsig, 1866, speaks of the dangers in the present cholera season from bad odors arising from the mouth, in consequence of caries of the teeth. He says: "It has already been noticed how much the dentist is exposed to evil influences from this cause, since he is constantly in the treatment of caries, removing fungous growths and infusoria, which, being the cause of all putrefaction, may bring disease into his dwelling." He then recommends to patient and physician as a mouth disinfectant, lozenges composed of twenty-four grains each of hypermanganate of potassa and hyperoxydate of baryum, rubbed up with sugar and glycerine—dividing the mass into 144 lozenges. The mass should be well triturated and become soft and homogeneous, similar to the lozenges of confectioners. The trial of this remedy for a bad odor from the mouth is said to be "extraordinarily satisfactory." Every ill-smelling mouth will become by their use entirely odorless.

Dr. William Goodell (late of Constantinople—for many years medical attaché of the U. S. Legation in Turkey), having returned to this country, has recently been appointed Resident Physician to the Preston Retreat—a lying-in hospital established in the city of Philadelphia for indigent married women of good character, by the liberality of the late Jonas Preston, M.D.

Health of Dr. B. Ogden.—We are happy to announce a progressive improvement in the health of Dr. Benjamin Ogden, who was prostrated by paralysis in November last. We trust that he may soon be able to resume his labors in the special vocation to which he has devoted so many years of his life. His many friends will rejoice in his restoration.

Guadalupe.—The last dates from Guadalupe state that the cholera is disappearing. The official statistics published by the government show a mortality from this disease of 10,806 out of a population of 149,107.

Original Communications.

REPORT OF A CASE OF APHASIA FROM APOPLECTIC CEREBRITIS.

By HARVEY E. BROWN, M.D.,

ASSISTANT SURGEON, U.S.A.

In the first number of the "Medical Record" is an article by Prof. A. Flint, Sr., on the subject of aphasia in connexion with hemiplegia, together with a report of cases. In this article the distinguished author expresses the hope that others may "contribute to the accumulation of facts for the elucidation of the affection." The case which follows, occurring in the hospital under my charge during the past winter, may perhaps be adding something to the history of this curious affection, and is presented with that view; and although differing in some material points from the cases presented by Dr. Flint, is yet, I think, of the same general character.

Private Joseph Bois, Co. "C," 3d Battalion, 17th U. S. Infantry, a Canadian by birth, aged thirty, unmarried, apparently a hard drinker, was admitted to the Post Hospital, at Hart Island, N. Y., about 6 P.M., February 2, 1866. At this time the following symptoms, principally, it is true, of a negative character, presented themselves:

The patient was in a state of profound insensibility, from which it was found impossible to arouse him. The pulse was natural as to frequency, but full and tense. The pupils were fixed, but neither contracted nor dilated; there was no strabismus. Respiration was rather slow, but otherwise naturally performed. There was no stertor. The under-clothing he had on was wet, and gave out an odor of recently passed urine. A careful examination of the head failed to discover any wound or injury of the scalp. Nothing could be learned of the previous history of the case, except that the man had been found lying insensible in his company quarters, and was at first supposed to be drunk. There was no odor of liquor about the breath.

February 3d, 9 A.M.—Condition of patient very much the same as yesterday, except that he continually draws his knees up towards the abdomen as if in pain. No abnormal symptom could be discovered on examination of the abdomen. He has no paralysis.

About 3 P.M. to-day he rose from his bed and walked to the water-closet at the end of the ward. When stopped by the nurse, he evinced no perception of what he was doing, but stared stupidly at him and passed on. Having had an evacuation from his bowels, he returned without trouble to his proper bed. In the course of the afternoon he repeated this action twice. Otherwise he shows no signs of returning consciousness. The pulse and respiration remain as before; the eyes are fixed and staring; the countenance otherwise being natural. The skin was moist; the condition of the tongue was not noted, it being found impossible to get him to protrude that organ.

February 4th.—A decided change has taken place since last night. The pulse this morning is 100, and weak and feeble; the respiration preternaturally slow. The patient remains insensible, but to a less extent than before. When spoken to sharply he opens his eyes, but without evincing any recognition of objects or persons about him. The bowels and urine are natural and regular. It is noticed that a blister, which was applied to the back of the neck, was unusually long in producing its effect.

February 7th.—There has been no material change since last report in either the condition of the patient or the symptoms. The pulse continues feeble and quick; respiration slow; bowels regular. Patient has gone as before to the water-closet. This morning, for the first time, he makes a reply to questions asked him. He answers invariably "Oui," or "Yes," without any regard, however, to the nature of the question.

February 8th.—This morning the pulse is 115; small and weak. The respirations are slow and labored. The extremities are cold; the insensibility more profound. The countenance has a haggard look; the eyes are closed, and on the lids being raised have a fixed and glassy appearance. Everything about his condition indicates approaching dissolution. Sinapisms were applied to the feet and epigastrium, and carbonate of ammonia gr. v. given every hour, with beef-tea *ad libitum*. In the evening there was a decided improvement in his condition.

February 9th.—Improvement continued; pulse normal in frequency and stronger; respiration, bowels, etc., natural. He again replies as before to questions. His appetite seems to be very good, for although he expresses no desire for food, he eats freely what is fed to him by the nurse.

February 12th.—Well marked ptosis of the left eyelid appeared this morning. There is no paralysis of the seventh pair. The patient to-day for the first time protruded his tongue. It is natural in appearance, and has no inclination to either side. Apart from the ptosis, there has been for the past three days a decided improvement.

February 17th.—A gradual improvement has taken place since last report. The pulse is now natural; the bowels regular; appetite good, etc. The ptosis is still persistent, and on his protruding the tongue this morning, a slight deflection was noticed to the left side. He has improved in his speech to the extent of adding the word "Sir" to his vocabulary. He now says "Yes, sir," or "Oui, sir." to everything said to him. He also rises from bed and stands at attention when the surgeons visit the ward.

March 3d.—Improvement gradual. The patient has gained in flesh and strength, and has now the appearance of a well man. The ptosis has partially disappeared, but the deflection of the tongue to the left side still continues. He has improved considerably in speech, and makes efforts to express himself in French, but his speech is thick and faltering, and he talks with great difficulty. He will commence a sentence, speak a few words, then stop and point to his head as if to imply that the difficulty was there and not in his tongue. The trouble now appears to be a want of association of ideas. He knows what he wants to say, but cannot associate the proper words to give expression to his idea. This is further shown by his using words of both French and English in the same sentence.

On the 3d of April he was discharged from hospital, by reason of his regiment being ordered away from the post. At the time of his discharge he was to external appearance as well as ever. The ptosis had nearly disappeared; the inclination of the tongue to the left entirely. The aphasia, however, remained the same as stated in the last note.

A day or two after he joined his company for duty I noticed him on evening parade, and observed that during the exercise of the manual of arms he was a moment behind the rest of his company in executing the various commands, as if it took him time to arrive at an accurate conception of the orders given.

The treatment adopted in this case consisted of cups and blisters to the back of the neck and temples, and subsequently, by the advice of a distinguished Army Surgeon, of the application of a moxa of camphor along

the course of the spine. This was several times repeated, and under its use he improved rapidly. In addition to this his strength was supported during his state of coma, when he was unable to swallow, by enemata of beef-tea and other nourishing articles. Subsequently he was placed on a tonic mixture, of which the sulphate of cinchona was the basis, which he continued to take until discharged from hospital.

The diagnosis was apoplectic cerebritis, followed by but slight softening of the brain. There was a remarkable disproportion between the amount of paralysis present and the persistence of the aphasia; the former being confined to the left eyelid, and a very slight deflection of the tongue. The fact of his walking as he did to the water-closet, when otherwise in a state of profound coma, is an anomaly which I cannot explain; perhaps others with more experience may do so. When he first did so I was inclined to think he was malingering, but the subsequent history of the case convinced me that in this I did him injustice. The case is further of interest in that the paralysis existed on the left side.

A CASE OF POISONING BY MORPHIA.

ARTIFICIAL RESPIRATION—HYPODERMIC INJECTION OF BELLADONNA—RECOVERY.

By THEODORE R. VARICK, M.D.,

OF JERSEY CITY, N. J.

I WAS called on the 18th of April, 1866, between one and two o'clock P.M., to see S. K., who had taken, two hours previously, two ounces of the following mixture: ℞ Tr. digitalis, ʒ iij.; Tr. lupulin, Tr. valerian, āā ʒ iss.; Spts. vini Gallici, ʒ j.; Sulph. morphiæ, gr. iv. M.

I found him in profound coma; pupils contracted; inspirations eight per minute; pulse eighty and full; countenance livid; stertor; surface warm and bathed in perspiration.

The cold douche to the head was resorted to, and persevered in for thirty minutes, without effect.

Respiration becoming less frequent, and the stertor increasing, he was taken from the bed and laid on the floor, when artificial respiration by Hall's method was commenced. This was continued until four o'clock, when it was suspended for a minute and a quarter, during which time it was evident that there was a total suspension of all reflex action, there being no effort at inspiration, and the only evidence of vitality was the continuance of the circulation, which retained its force and rhythm to a remarkable degree.

The lividity, which had nearly disappeared, was rapidly returning. Artificial respiration was again resorted to, and continued until five o'clock, when it was again suspended for a period of a minute and a half.

During this time, as in the first instance of suspension, the same absence of the "besoin de respirer" existed as before, while the pulse alone encouraged a perseverance in the efforts at restoration. Lividity increasing.

Dulness on percussion as high as the fifth rib on the right side; while above that point, and on the left side, the thorax was resonant and the respiratory murmur distinct during the artificial process. Accumulation of frothy mucus about the fauces, producing a gurgling, sucking sound, with paralysis of the muscles of the larynx and tongue, reudering asphyxia imminent.

The tongue was seized with a forceps, drawn forward, and secured by passing a needle armed with a double ligature through its substance, which was held by an assistant. The artificial process was again resorted to with feeble response.

At this period the vital forces seemed rapidly failing, and I determined to try the effect of belladonna hypodermically administered. I procured the following: ℞ Ext. belladonnæ, gr. x.; aq. destillatæ, ʒ j. M. Of which I injected four minims under the skin of the left arm, near the insertion of the deltoid.

No perceptible effects following, artificial respiration being in the meantime kept up, after the expiration of thirty minutes, I again injected four minims near the same place, with no better result. 8 o'clock P.M.—Pulse seventy, with some intermission. Pupils contracted. Profound coma. Responds seldom and feebly to the artificial efforts at respiration.

Belladonna, four minims, injected as before, with a slight improvement in reflex action.

Hall's method was continued from this time until about ten o'clock, with no further improvement, when belladonna was again injected in the same quantity as before, in the right arm, just below the deltoid. The effects were very marked, respiration being carried on with slight and occasional assistance. Stertor subsided, and almost a total disappearance of lividity. No effect on the pupils.

At the expiration of thirty minutes belladonna was injected in the same quantity as before, and near the location of the last, with almost magical effect, the pupils rapidly dilating, with a return to consciousness in less than fifteen minutes.

The subsequent treatment consisted in the administration of strong coffee and the keeping up of constant excitation for two hours longer, when, as there remained but slight drowsiness, he was permitted to rest for the balance of the night.

Apart from the fact that artificial respiration was kept up for over eight hours, one of the most noticeable features of the case was the force and regularity of the circulation, which was probably due to the cardiotonic properties of the digitalis contained in the mixture. The antidotal properties of belladonna were manifested to a remarkable degree, by the return of consciousness as soon as its physiological effects were produced. The results obtained in this case commend the treatment to the profession as a speedy and reliable resort in similar emergencies.

APPROPRIATIONS TO DIFFERENT MEDICAL INSTITUTIONS.—Under the act to enable the Board of Supervisors of the County of New York to raise money by tax for the use of the Corporation of the City of New York, and in relation to the expenditure thereof, the following, among other appropriations, have been made:—Board of Health, $2,500. City Dispensaries, $8,000. For the construction of an Inebriate Asylum in the city of New York, established by chapter 141 of laws of 1864 (to be paid by the Comptroller, from time to time, on the requisition of the Commissioners of Charities and Correction), $100,000. For "Ophthalmic Hospital," under resolution of Common Council, approved December 30, 1865, $2,000. For "St. Luke's Hospital," under resolution of Common Council, approved December 30, 1865, $4,000. For "Magdalen Female Benevolent Society," to be disbursed under direction of the Commissioners of Correction and Charity, $3,000. For Ophthalmic Hospital, to aid in erection of Building, $3,000. For "Hospital of the Sisters of St. Francis," $5,000. Nursery and Child's Hospital, $5,000.

PUBLIC BATHS.—A resolution to establish public bathing facilities for the people of this city, passed the Board of Councilmen on the 23d ult.

Original Lectures.

ON CHOLERA.

By A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICAL MEDICINE, COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.

Lecture V.

The Natural History of Cholera as bearing on the question of the Contagiousness of the Disease.

You perhaps feel, gentlemen, that I said enough on the question of the contagiousness of Cholera at our last meeting; but I wish you to be informed regarding many other facts that belong to its natural history, some of which appropriately fall into the line of the argument.

I have already stated that personal communication and contact with the sick does not seem to increase the liability to the disease. The eight physicians of Astracan, where this disease first appeared in Europe, who wrote to the authorities of Moscow, before it had reached any other part of Russia, said: "We have handled our patients, we have rubbed the sick, we have visited the hospitals with due care, the wards being crowded with patients, and we have not feared to respire the breath of these sick persons." They state that the breath had an odor of something burning. They took no precautions either for themselves or their families, and none of them suffered from the disease. This was, at the time it was made, a very important statement. Then they go on to say that nurses and persons who had emptied the utensils were as free as themselves from the disease. It is further stated that the patients in the hospitals were frequently clothed in the garments of persons who had died of Cholera, and yet were in no manner affected more than others. Dr. Houston, in a paper recently published in the *Richmond Medical Journal*, states that a newspaper editor of Wheeling, as a sort of bravado, put on the clothes of a person who had died of cholera, and lay through the night with these garments upon him, and did not suffer by the disease, though "distilled to jelly by the act of fear." The European physicians frequently refer to the fact that the wife, or child, or husband, has slept with the sick person, and not taken the disease. Infants are spoken of in hospital reports as drawing their nourishment from their sick mothers' breasts almost to the moment of death; and yet these children have not taken the disease. These facts, added to what was stated to you the other day, seem to make a pretty strong case against contagious emanations from the bodies of the sick. Dr. Houston states (and this is a statement I repeat in the name of humanity) that at Wheeling, where the disease prevailed with great severity in 1833, the proportion among those interested in the sick, who sought them out and nursed them, and who had the cholera, was much less than among those who carefully avoided the sick-room. The brave and humane resist epidemic influences under which the timid and irresolute sink.

There are certain other considerations that bear upon this question. Small-pox, measles, scarlet fever, are always to be found in this city, and in every large city; they do not become extinct at any time. Cholera has a different history. It comes in a great wave of invasion; it lasts a variable period, from four to fifteen months, and then disappears, after an interval, to come again by progressive steps in the same manner as at first. If the disease is really contagious, the question arises where, in large communities and crowded places, would the communicability cease, or why should it suspend its ravages any more than small-pox or scarlet fever? It has nowhere, so to speak, become naturalized. It remains in its native land, to break out and spread from time to time; but it has reached Europe only as a foreigner, and this country in the same character.

Again, the invasion is too rapid. When it strikes a particular community, large numbers fall sick in a period of time much too short to countenance the supposition that the poison is generated in a particular person, and from him communicated to others, and so spreading from person to person. This implies time for incubation and development. When cholera appeared in Paris for the first time, it was in the latter part of March, and during the month of April it had accomplished the greater part of its work. Eighteen thousand four hundred and sixty-three persons died of cholera that year in Paris, and nearly thirteen thousand had been made the victims of it before the end of April. In eighteen days from the time it commenced, seven thousand had fallen. When it appeared for the first time in New York it was declared epidemic on the third day of July; during that month of July seventeen hundred and ninety-seven persons had died of it, out of a told mortality during that epidemic of three thousand five hundred and thirteen. During the first month of the disease the mortality exceeded the half of all the mortality. Perhaps the matter can be studied better in smaller communities; and for the purpose of letting you see how it sometimes operates in villages, I refer to a history, given by Dr. Houston, of an epidemic in a small village named Bridgeport, on an island opposite Wheeling, in the Ohio river. The village contained at the time a population of between two and three hundred persons. It is screened by a border of trees on the side towards Wheeling, but the track of the great western travel from this city crosses the island. Cholera appeared in Wheeling on May 15, 1833. This little village remained untouched, though in free communication with Wheeling; the communication being limited only by the fears of the people, whose necessities, however, compelled them to go there frequently, until quite the end of June. Then a single cholera case occurred of an evening, and in thirty-six hours twenty-two persons had died in neighboring houses; and this number of deaths would probably stand for a considerably larger number of cases. In another hamlet, five miles below Wheeling, screened from the river by an undisturbed native forest, on alluvial ground, and backed by hills that protected it considerably from the winds, were a few houses inhabited by poor people, and during the prevalence of cholera in Wheeling and Bridgeport, no one was afflicted in this village. After it had entirely gone from Wheeling in a single night, nearly all the people of this hamlet were attacked, and in twenty-four hours one-fourth of them were dead. Now this does not look like contagion. Contagion cannot reproduce itself and spread in this way, if we can judge from what we know of it in other diseases, in this short time. There was some poison operating upon these people, and affecting them all in the same manner and nearly at the same time. A somewhat similar history is reported by Dr. Jackson, and recorded in the third volume of the *Transactions of the American Medical Association*. He says that during the prevalence of cholera in Philadelphia in 1849, at a healthly locality, twenty-six miles distant from Philadelphia, lived two farmers, father and son. None of their families had been to Philadelphia within a period of three weeks before the occurrence of cholera among them. In one of the families, that of the son, there were three boarders, carpet-weavers.

One of these weavers had been to Philadelphia within a week of this outbreak. On July 11th, these two families, living three-eighths of a mile apart, but in continual communication, were simultaneously seized with cholera. In the father's house, the father and one other person were attacked; and in the son's house a young man who was living with him. This was in the evening, and at midnight two other persons were attacked in the house of the son; and from that time on, in the course of eleven days, six more were attacked, making eleven out of fifteen persons, of whom five died. How shall we account for the attack of the father and one inmate of his family, and of one of the son's family, seized as it were almost at the same instant? The physician who makes the report states that the neighborhood was healthy till the 11th, and that on the 12th he was called to see some cases of cholera-morbus—he does not denominate it cholera—and in a period of two weeks there were a great many cases of dysentery, several of which proved fatal. You may say this weaver brought the poison from Philadelphia. That is possible, but he was not sick; the three weavers all escaped. Whether he brought any baggage or goods of any kind does not appear in the report. Pettenkofer advocates the opinion that the diarrhœal evacuations are as dangerous as the choleraic, and he would doubtless urge that either the weaver had a diarrhœa, or that a diarrhœa had continued three weeks in some other member of these families who had previously visited the city. It seems to me if the weaver brought anything poisonous from Philadelphia he must have brought something that could be let loose, and produce a similar state of air in the house of the father and the house of the son, and could soon infect the neighborhood.

Then refer to the occurrence already cited in the Massachusetts State Prison. Dr. Morris was called up to see one patient who had been in solitary confinement seven years, and before he could return to his bed he was called to four others in distant sections of the building; and within forty-eight hours two hundred and five persons were attacked. Such occurrences are not in conformity with any of the known laws of contagion.

There are facts of another class. The mode in which the disease subsides in many instances is worthy of notice. Many of you have heard of the cholera in the grand army of the Marquis of Hastings, in India (1817). Marching through a low country affected by the disease, he lost, in twelve days, seven hundred and sixty-four of his soldiers, and the report runs, thousands of camp followers. He crossed a clear bright stream, ascended its high, dry banks, encamped there, and the cholera ceased at once, having had a course of twelve days instead of twenty-eight or thirty, which has been regarded as the usual term of the disease in the armies of India. If it had been contagious it would seem that the poison must have been already introduced into the bodies of many, who would still become sick in the new situation; indeed, its duration should not have been materially influenced by change of place. Another account, somewhat analogous, is given of a regiment of English troops that arrived during the prevalence of cholera on the Ganges. They were reported to have been in the very best condition of health. They were to be sent into the interior, and were to go up the Ganges in boats. They started in two divisions, one a month after the other. Immediately after the first division came into the portion of the river along which the cholera was prevailing, they began to suffer; the disease proved more severe as they passed into those regions most intensely affected, and grew less severe as they passed into districts where it was less violent; and when at length they emerged from the affected region, the disease ceased altogether among them. One month after the second division undertook the journey in the same way, was affected in exactly the same manner, and relieved under exactly the same circumstances. It is true that armies marching in India have often carried the cholera with them into healthy districts, and it has prevailed among them as an epidemic in such regions, the usual duration of which is given as thirty days, and the term of its greatest severity eighteen days. In the instances now cited the disease was not governed by these precedents, but appears to have been wholly under the control of local influences.

Dr. Bryson, a surgeon in the English navy, reports that the fleet to which he was attached in the Mediterranean, coming from an entirely healthy region, touching at no port where cholera prevailed, and coming into the eastern region of the Mediterranean Sea, the men were attacked with cholera on the ships while yet some miles from the land, and before any communication had taken place. This statement is cited as an evidence that the winds can transport the efficient cause of the disease, whatever that may be. But admitting such transportability, the question still remains whether the thing transported is a contagious principle or a poisonous product from the air or earth. So far as we know, there is no possibility of carrying the poison of typhus, or smallpox, or measles, or scarlet fever, upon the wind for any such distance. Indeed, it is not probable that either of these diseases can be communicated beyond a few feet—certainly, under ordinary circumstances, not exceeding a hundred—while miasmata are much more widely diffusible. Facts have been observed in the harbor of this city which justify the belief that the yellow fever miasm can be carried on the wind over the unobstructed surface of the water a distance of one mile; and that the cause of intermittent fever can be transported by the same agency over an open country a still greater distance, is generally admitted.

There are some other facts that bear upon this question. It is reported by Drs. Ball and Gull that in Oxford, England, the disease just divided the town, and only one case occurred in the exempted portion; and the statement is, that that part which was affected with cholera was low and incapable of drainage, and that the people were of less virtuous habits, and less cleanly. It would hardly be probable that a disease that was contagious would not have passed this line, particularly since the persons who lived in the poorer part of the city would be continually employed by those who lived in the better part, for the intercourse was be uninterrupted. In India it appears that it is not very uncommon that one part of a town will be entirely or almost entirely exempt, and another part heavily afflicted. This fact was noticed again in the same report. There is, it appears, a portion of Manchester, England, where there are pigs and pig-styes, low undrained ground, uncleanliness, and every source of insalubrity, called "Little Ireland." When cholera visited Manchester it pervaded nearly the whole town except this "Little Ireland," and there the number of cases was but five. In the neighborhood, only three hundred yards distant, was a somewhat similar district, that suffered very heavily. Analogous facts could be cited in considerable numbers, all of which seem to point, not towards contagion, but rather to some special local agency existing in one district and not in another; for the five cases in Little Ireland were quite enough to have generated and diffused the contagious principle, if it exists, though the disease in each may have been contracted in another part of the city.

Then there is another important fact—that cholera in Europe, and with certain limitations in this country, has

its avant-courier. The diarrhœa and other disorders of the bowels, of which I have already spoken, precede the actual advent often for weeks, sometimes for months, affecting not alone those who are afterwards to be the subjects of the disease, but to speak a little widely, the whole population; affecting not alone the towns and places to be afterwards scourged, but large districts which are not otherwise visited. Now, is there anything analogous to this in the history of contagious diseases? Does it not seem that the elements are tainted by the breath of the far-off pestilence, as no human emanations can taint them; that the air or earth, or their constituents or accidents, have already assumed an unfriendly attitude towards man, and are in league with the coming scourge? This fact will appear more strikingly by contrasting the approach of cholera in Europe with its advent in this city. It has been my fortune to have witnessed all the epidemics that have occurred in this country. I remember that of 1832; and though a student of medicine in my first year at the time, I observed and feel authorized to say that previous to the invasion, on the 24th of June, there was no diarrhœa prevailing among the people. When the cholera became epidemic diarrhœa became general. I scarcely knew a person at that time who was not more or less affected by it, and it has been the same, if I can trust my recollection, in every recurrence of the disease; and yet as the disease spread through the country, after making a lodgment in New York, it was preceded, at least in most instances, by the same precursors as in European towns, while in many places diarrhœa prevailed, and cholera did not follow it.

The conditions of insalubrity that I just now referred to are very conspicuous in the history of cholera. Everybody knows that it chiefly selects those parts of towns that require the most and receive the least official cleansing. Is that the case with the recognised contagious diseases? It is true that wherever people are crowded together in great numbers, there typhus, and small-pox, and scarlet fever, and measles, will assail a larger number, and a larger proportion even, than in portions of a town where the people are more favorably situated; but overflowing or uncleansed privies, neglected cesspools, a leaking or obstructed soil pipe, a soil saturated with decomposing organic matters, imperfect drainage, well-water contaminated by infiltration from drains and excrementitial impurities, imperfect ventilation, personal uncleanliness, open sewers, and similar causes of ill-health or sickness, do not aid in multiplying the cases of these affections, although they doubtless augment their mortality by depressing the vital powers.

In the greater number of places where cholera has prevailed, it has been most mortal in the warm months of the year. There is an impression that the cholera does not prevail in the cold seasons. It is undoubtedly true that when it is on its march as an epidemic from one region to another, its progress is frequently checked by winter and renewed in the spring; and yet I read you an account of a severe epidemic occurring in that very large pauper school at Tooting, which began in the winter. In St. Petersburg, and particularly in Moscow, the disease has prevailed twice in winter, and has been severe. In Scotland it prevailed in the winter 1848–9. It was most severe in Glasgow and Paisley at that particular period, and it diminished in severity as the warm weather came. But that you may get a better idea of the exact facts in relation to this subject, I will read to you from the Registrar-General's reports the number of deaths that occurred in England in the successive months, from July, 1848, to December, 1849. In July, 1848, in all England there were 189 deaths; in August 232; in September 187; in October 325; in November 386; in December 400; in January 658. And now it begins to decline. In February there were 371; in March 302; in April 107; and now as warm weather comes you observe it begins to increase. Its minimum is in April; in May there were 327; in June 2,046; in July 7,570; in August 15,872; in September 20,379. You observe the greatest fatality in winter was 658, in the month of January. The greatest fatality in the warmer months is 20,379, in the month of September. From this point it again declines; in October 4,654; in November 844; in December 163. Then again you are to bear in mind what I just now stated regarding the occurrence of the disease in Paris in 1832. Its greatest mortality was in April, before the warm weather had fairly begun; and as the summer came on it had nearly disappeared.

But when you take the great history of the epidemics and sum up all the facts, there is no manner of question that it produces many times greater mortality in summer and the first month of autumn than in all the other months of the year.

Indeed the statistics we have just been considering give 43,821 deaths to the months of July, August, and September, 1849, leaving only 8,034 for all the other months.

Is anything like this true of the contagious diseases? I know very well there are severe epidemics of the three of the diseases I have taken as types of the contagious affections in summer; but when you look through a series of years and mark their occurrence in different places, as we have considered the relations of cholera, we do not find that they prevail more extensively or are more fatal in summer than in winter. On the contrary, when houses are closed and there is but little chance for ventilation, they prevail in greater severity. This is eminently true of typhoid and typhus fevers in New York; autumn and winter are the seasons for these diseases; and in summer they diminish. In these many respects, then, there seem to be broad contrasts between contagious diseases and cholera. And now, without attempting to exhaust this topic, I pass to another, adding, however, by way of explanation, that what I have said of contagion relates to emanations, vapors, or effluvia arising from the sick person, the dead body, the freshly discharged evacuations, and the fluids and solids of the body, as commonly exposed and handled in a post-mortem examination. I am not prepared to deny or to admit the doctrine that cholera is produced by the ingestion of minute portions of cholera discharges, though it appears to me improbable. I do not deny that the evacuations may become poisonous by fermentation, or that the soil and the evacuations may together produce the poison. One or other of these opinions, or the more vague idea, that in some undefined way the evacuations reproduce the disease, has taken possession of the minds of many ardent men in the profession; but a deliberate examination of evidence has shown, as it seems to me, that neither of the doctrines is fully proven. But admitting either one of them, even then the disease would be contagious, or infectious, if you prefer the term, only in a modified sense, not as typhus and small-pox are.

Although cholera is not contagious, it is portable, or at least its cause is. On this point will turn the wisdom or propriety of quarantine; and if I enter somewhat into detail in stating the facts which bear upon it, you will suppose that I am influenced by a desire that you should understand the question fully, and not prejudge it on the statements of those who have lost faith in this preventive measure, while at the same time you

acquire additional information regarding the habits of the disease. From our very first knowledge of cholera we have been familiar with the fact that it has marched from its home in the East along the great travelled roads; that it has kept time with the movements of travel, or at least has not out-marched it; that it has followed the lines of commerce; that it sometimes attaches itself to armies, and follows the course of their march over a large district of country, attacking certain towns and villages, and not attacking others in their course—thus discriminating because the conditions necessary for the regeneration of the poison exist in one and not in another. It has marched with caravans of pilgrims. Pilgrims from Mecca brought the disease into Egypt; and from Egypt it spread into various parts of Europe last year. It has marched with pilgrims from the East into Arabia. Indeed it is very generally asserted throughout Europe that only in isolated and exceptional instances is it found out of the line of travel and commerce; while Pettenkofer holds that no instance of supposed spontaneous origin will bear the test of close examination; that it always and everywhere in Europe originates in the action of choleraic evacuations upon the soil, these being discharged by a person arriving from an infected place, or by such a person travelling and leaving the noxious secretions on his way.

But the mode in which the disease crosses broad waters is more instructive. How, for example, did it first reach England? That country is separated from the continent by waters quite too broad to permit the wind to carry the poisonous principle from shore to shore; and as a matter of fact, the disease has first appeared there in regions where the sea is of the greatest width. The very first point invaded on the shores of England was Sunderland, near the parallel of 55°. To this place it was brought by trading vessels. The points where it has made its attack in every epidemic in England, except one, have been upon the eastern coast, and at one or other of the principal commercial towns, Hull, Sunderland, Newcastle; and in each instance the first cases occurred after the arrival of infected vessels. The same is true of its appearance at Edinburgh in Scotland, and at Dublin and Belfast in Ireland. It generally appeared in London only after it has made a landing in those more northern cities. In one instance, in the autumn of 1853, it occurred first in Liverpool, and a few days after at Newcastle, on the opposite coast. It occurred in Liverpool among the German emigrants who had just been landed there from Hamburg, where the disease was at the time prevailing. It was clearly carried there; it was in the ship during its passage from Hamburg to Liverpool. It soon became mildly epidemic in Liverpool, waiting, however, for the next warm season to become severely epidemic. Then it has crossed the Atlantic, and how? At one time it was fashionable to assume that the cholera marched by a certain steady progress; that it was caused by a great morbific wave rolling slowly and steadily eastward, and that it would envelop place after place at pretty regular intervals; but this opinion does not bear very close inspection. In its movements in India, at first its progress was about twenty-one miles a week; in its movements from the delta of the Ganges to Canton in China, going eastward, it travelled little more than ten miles in the week; when it reached Europe its progress was estimated at a greater speed, sometimes eighty and sometimes a hundred miles in the week; but a hundred was the highest figure assumed to represent its progress. Now dating from the time when cholera first appeared at Sunderland, in 1831, to the time when it first reached Quebec, and then in New York, the rate of progress would hardly be greater than that indicated by the highest of these figures; but in subsequent epidemics it has crossed the ocean at the rate of three hundred and fifty and four hundred and fifty miles a week. Then, too, it appeared in England before it had assailed the region intervening between Hamburg and the British Islands; and the question arises, if it depends solely upon any such atmospheric wave, why were these intermediate places exempted. Again, when it came to this country, it first appeared at Quebec and Montreal. If that wave had rolled across the Atlantic, and so reached these cities, it must have passed directly over Nova Scotia, New Brunswick, and the northern part of Maine; and yet no disease was found there until long after it had made its way to New York, and thence spread in various directions. But we find that the brig *Carricks*, and another vessel bringing emigrants to Canada, reached Gros Island, the quarantine grounds of Quebec, and thirty-nine miles below it, on the 3d June, 1832, having cholera on board, and that the emigrants of these vessels were taken by a steamer from the quarantine grounds; that some of them were landed in Quebec and some in Montreal; and in two days from the time this steamer reached each of these cities, that is, on the 8th and 10th of June, the disease broke out in those towns; and that it gradually spread to become a severe epidemic. Then how did it come to New York? It had now made a lodgment on this continent. On 10th of June it was at Montreal; June 24th it was in New York. Did it travel from Montreal to this city? That is the more common opinion. But if it invaded New York from Canada it passed over Burlington, Troy, Albany, and all the intermediate towns on its way, to return to them after establishing itself as an epidemic here. That was the day of steamboats and stage coaches. Railroads did not reduce the distance between Montreal and New York to a single day's journey. Travelling, though rapid then, was not so rapid as to make it probable on this supposition that these towns would have escaped. Dr. Vaché, however, states that the ship *Henry IV.* arrived in New York harbor with cholera on board, in the latter part of June. He makes this statement in 1850, and says he has searched for the records for the date of that ship's arrival, but could not ascertain the precise day, the volume in which the entry was made having been mislaid or lost. There is, then, a chance, a probability, that the disease reached us in New York as it reached Quebec and Montreal, directly from Europe, by emigrants or passengers; still, an affection that is transportable would hardly prevail long at Montreal without finding the means of extending itself to this commercial centre, so constant is the intercourse between the two cities. But if it came from the ship *Henry IV.* the mode of invasion would be in accordance with that of the subsequent epidemics in this country.

The history of the approach of cholera in 1849 is interesting. It began, indeed, in 1848. Two ships left Havre, one on the 31st of October, the other on the 9th of November, 1848. The latter ship, the *New York*, was bound for the city of New York. The first, the *Swanton*, was bound for New Orleans. The passengers in these two ships were of the same character, mostly German emigrants; they had been taken up in both instances at Havre, which port was at that time free from cholera. They had come to Havre for the purpose of finding a ship for this country. One report states that a portion of them had left infected places in Germany. The ships came out with a clean bill of health. The *New York* had been at sea sixteen days when cholera appeared—that is, on the

25th of November. The *Swanton* had been at sea twenty-seven days when the first case occurred, it being the 26th of November. They were one thousand miles apart. They were both off the coast of the United States, one in latitude 25° 47′, and the other on the parallel of 42°. The outbreak on the *New York* is by the captain of the vessel ascribed to the following fact: A very cold, chilly wind came up on the 24th, and the passengers found themselves in want of warm garments; in his own phrase, "there was a general overhauling of baggage for warm clothing." Then the next day became exceedingly hot, and on that day the first case of cholera occurred. On board the *Swanton* this cold day was not experienced; but, says the captain, "previous to the sickness, for twenty-four hours we were visited by a very hot south-east wind; such a one as I never felt before; indeed it was more like artificially heated air than anything else." Now, the question comes, where was the poison that produced this disease? Was there a layer of cholera-air stretching up and down the ocean, into which these vessels sailed about the same time? Such a supposition is unsupported by any other fact in the history of cholera, and is therefore in the highest degree impossible. The wind could have had no agency in the transporting of poison; for, during the interval of twenty-four hours which elapsed between the occurrence of the first case on board the *New York* and the commencement of the sickness on board the *Swanton*, the wind was blowing from the south-east, or nearly in an opposite direction. Then it would be waste of breath to express the idea that any animal poison could traverse a thousand miles upon wind. It seems to me far more probable that the poison was lurking in the baggage of these passengers, and that the emergencies which require the opening of unventilated trunks and packages, let loose in each of these ships that poison brought from the infected regions of Germany. There is, however, another explanation which is urged by those who have paid much attention to the researches of Pettenkofer and the Bavarian Commission. It is found in the period of incubation." This period, it is asserted, is long enough to admit the supposition that a person might receive the infection in Germany, then travel to Havre, embark and be at sea sixteen days, and after that have the disease declare itself in him. This would imply an incubation of above eighteen days, and it is claimed that it may be twenty-one, or twenty-five. But even this maximum requires a little extension to meet the circumstances of the *Swanton*. Twenty-seven days at sea and two days from Germany, would make an incubation of twenty-nine days, a period longer than has yet been claimed. Well, the two ships go on their voyage. One arrives in the harbor of New York on the 1st of December, six days after the outbreak, having lost seven of its passengers. The other goes into the Mississippi river and up to New Orleans, having lost several of her passengers, reaching the city December 11th. On that day, one patient was sent from the ship to the Charity Hospital. Two days after, a person not attached to the *Swanton*, but resident in the city, was attacked, and on the 15th eight persons were admitted into the hospital with the disease. This was the beginning of an epidemic which lasted during the whole of that winter in New Orleans, became more intense as the spring opened, and ascended the river from that place.

The *New York*, in the harbor of New York, discharged eleven sick passengers to the quarantine hospital, and the disease became locally epidemic at the quarantine grounds. The first person, not attached to the ship, who was attacked, was one who went on board the vessel and was seized forty-eight hours afterwards, dying the same day. A nurse who had had no communication with the passengers of the *New York*, as far as was known, was attacked at about the same time. Early in December, one of the passengers of the *New York* was attacked with cholera in the city and was sent back to quarantine. His room mate was also attacked. Both died. The disease did not spread in the city, but it became epidemic in the quarantine hospitals, so that among the steerage passengers detained, and the inmates of the hospitals, there were, up to the 28th of December, one hundred cases, one-half of which proved fatal. The disease seemed to have been checked by severe cold on the 1st of January, when it ceased. But it reappeared in the first week of April, 1849, and prevailed at quarantine for more than a month before any case occurred in the city. During the spring of 1849 several ships entered the harbor, having cholera patients, who were sent to the hospital at quarantine. Up to the 15th of August forty-one such persons were landed, and there had been in the hospital one hundred and ten deaths from cholera.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

ADJOURNED MEETING, MAY 9, 1866.

DR. JAMES ANDERSON, President, in the Chair.

MALIGNANT INFLUENCES OF THE UTERUS.

DR. GRISCOM, in a paper entitled as above, gave the details of two cases:

Case 1.—A lady aged 30, who had been married several years, and whose only child had attained her ninth year, consulted him with regard to certain symptoms, pointing in her view to the lungs as the seat of disease. She described her health as having been delicate for a while back, that her cough had become quite distressing; in short gave him a summary of the rational signs of phthisis. He found her much prostrated and suffering considerably from loss of sleep, to which her nervous excitability had subjected her. He could find, on auscultation and percussion, none of the physical signs of pulmonary disease; but by excluding the other organs, he was led to make a vagino-digital examination, and discovered the uterus in a condition of complete retro-flexion. The use of Simpson's sound and taxis *per rectum* effected restoration, which was further maintained by means of a horse-shoe pessary. All the symptoms then disappeared within a short period, and a robust infant was born within the year. In this case he was disposed to assign as the original cause for the displacement of the fundus a non-restoration of the tonicity of the muscular fibres of the uterus, which process was by some means delayed after the completion of her first labor.

Case 2.—A lady from Ireland, four months married, and in her twenty-second year, sought his advice for dyspepsia, with the usual train of symptoms, such as constipation, etc. The vomiting, tenderness over the epigastrium, and other symptoms, induced him to treat her for subacute gastritis by applications of croton oil and blisters, but without any good result. He at length discovered that the amenorrhœa, from which she had suffered since her seventeenth year, was co-incident with the constipation. She ascribed this derangement in the menstrual function to an unusual and severe exertion in leaping a fence to escape being injured by

a horned brute. Horseback exercise, for which she had something of a passion, doubtless also contributed to maintain the uterus in its deranged action.

On examination he found the *fundus* and *os uteri* nearly on a level with each other. He restored the organ and enjoined quiet in a recumbent position for a week. The result was a disappearance of the painful suspensions, which were wont to be the rule for three or four months at a time, and a return to her menstrual standard before the occurrence of the accident. The removal of all the other distressing symptoms also, added but another to the many instances of the controlling power of this organ in the female economy.

CONGENITAL ABSENCE OF THE UTERUS.

Dr. Chamberlain related a case which came under his observation at the Demilt Dispensary. The female presented herself several months ago at his class for Diseases of Women, with icterus, and anasarca, dependent upon albuminuria. Her condition requiring attention to physical wants as well as continuous treatment, decided him to send her to a hospital, from which time he had lost sight of her, until her reappearance at the Dispensary last week with secondary syphilis. He then found her with a general papular syphilide, together with the local manifestation of mucous tubercles. He discovered, on examination, also, that the vagina was a *cul de sac* one and a quarter inches in depth, the uterus absent, and the mons veneris and labia deficient. The mammæ were, however, fairly developed. She was herself altogether ignorant of her anatomical peculiarity. She affirmed that the sexual instinct was absent, but was conscious of a molimen at stated periods, from which he inferred the presence of the ovaries.

HYPODERMIC INJECTIONS OF MORPHIA.

Dr. Clark then illustrated the effects of hypodermic injections, by the recital of the following cases, recently under observation:

Case 1 occurred at the residence of a medical gentleman, in the person of a lady visitor. He found her with a cold surface, upon which there was present some perspiration, and with vomiting, as well as copious dejections from the bowels. She was restless, nearly pulseless, and apparently dying. Her condition indeed was looked upon by both as desperate in the extreme. He suspected that these exceedingly rapid disturbances—for the invasion was sudden—were due to the introduction of some poison into the system, and further inquiries elicited the fact that an over-dose of the saturated *tinct. rad. aconit.* had been taken. This had been prescribed some six months before by the medical gentleman alluded to, in five-drop doses, to be taken after dinner, with the usual caution against exceeding the directions. But the patient, while in a hurry, had poured out into a teaspoon and swallowed an unestimated quantity of the medicine, with the results as just described.

Stimulants, with a view of bringing up the heart's action, were then suggested to both, and owing to the gastric irritability, an injection *per rectum* was accordingly given, but immediately returned. They were then driven to anodynes as their next resort.

The hypodermic syringe, charged with fifteen drops of *Magendie's sol. morphiæ*, was tried, when, after the lapse of some fifteen minutes, the vomiting ceased, the pulse returned, the hands became warm, and a gentle slumber was induced, which lasted for two hours. Then another portion was introduced, which carried the patient through a period of quiet to the morning of the next day, when, at eight o'clock, he found her suffering from nothing but nausea.

Case 2 was, in its bearing upon this question of endermic medication, rather adverse. A patient, who had been the subject of an instrumental labor, was received eight days afterwards into one of our public institutions for the purpose of being treated for a decided trismus, accompanied by a spasmodic action of the limbs. To produce quietude and sleep, of which the patient was in much need, the house physician had used, but without effect, fifteen drops of Magendie's solution of morphine, endermically applied. This treatment he had himself ordered to be continued, according as the condition of the patient, who was to be visited every two hours, might warrant. The instructions were faithfully observed, and some four or five injections, varying in quantity from ten to twenty drops, at intervals of two to two and a half hours apart, employed. At 2 A. M., the physician finding her still unaffected by the narcotic, her spasms unrelaxed, her intellect clear, and as far as her nervous system was concerned, as sleepless as ever, again injected twenty drops of the solution. The nurse in attendance states that the physician had scarcely left before the patient fell asleep, but that supposing everything was going on well, she refrained from reporting her condition. On a succeeding visit, she was discovered profoundly narcotized, from which state she could not be aroused. The points into which the solution was introduced were carefully dissected, but only around the last one was there remarked an ecchymosis, from which the inference was drawn that the injection was sent directly into a small vein instead of being introduced through the more indirect medium of the areolar tissue. The action of the morphia was, in consequence, more prompt. There was likewise found a laceration of both the uterus and vagina, besides some adhesions, which shut in a certain amount of pus, the results of inflammatory action, but there was no general peritonitis. Before commenting upon this issue, he would preface it by another statement, that a case is recorded where the sister of a physician became the subject of some three thousand of these injections within the year, without any unpleasant result. Still, these possible accidents were to be considered; in fact, a physician in a neighboring state had informed him of the occurrence in a single season of three fatal cases ascribable to the adoption of this method.

Dr. Bacheldor had been in the habit of giving opium in tetanic cases, and looked for its effect in from fifteen to thirty minutes; should none then be produced, he had no hesitation in repeating the dose. He was also wont to watch for the nose-itch, which he regarded as the very earliest announcement of approaching narcotism. As a safeguard against accidents in these hypodermic injections, he would suggest a pinching up of a fold of the skin and the simultaneous introduction of the syringe.

A CASE OF PURPURA HEMORRHAGICA.

Dr. Bulkley had about a month ago attended a case of which he gave the following summary: A lady, aged about 23, married on a Thursday, was on a visit to the city and had put up at the Astor House. Her health remained as good as usual, until Sunday, and then only a certain yellowness of the skin, supposed to be that of jaundice, was remarked. On Monday, she breakfasted at the hotel table, when her husband noticed some redness at the tip of the nose. During the forenoon of that day she was attacked with nausea, vomiting, and some diarrhœa. She also threw up a dark fluid resembling blood, and passed blood from the bowels. Although urged to seek medical advice during

the day, she declined doing so, and was not accordingly seen by him until 10 o'clock P. M. Delirium, incessant jactitation, ecchymosis of the eyes, a pulse almost incapable of being counted, the nose markedly cold and of the hue of deep red wine-lees, together with a streak of the same color, which did not disappear upon pressure upon each side of the cheek, then severally formed the prominent features of her condition. During his attendance, which was continous, he ascertained that there was hæmorrhage from the vagina also. His prognosis was unfavorable from the first, but by the free exhibition of stimulants, as well as of external applications, her surface resumed in a measure its natural temperature. The pulse also rallied somewhat and became variable, ranging from 118 to 140, 150 and over. She finally rejected both stimulants and food, and died on Tuesday at 5 A. M. seven hours after he had first seen her, without any manifestation of coma during the progress of the disease. The case he thought remarkable for the rapidity of its termination. He recognised at once the symptoms of a malignant disease, and suspected that it was purpura hemorrhagica, complicating variola, of which he had seen several cases, and all of which had proved fatal. He therefore searched carefully for evidence of an eruption, but could find nothing to satisfy him. He had, however, subsequently heard from her husband that small-pox had been prevailing in the town where she lately resided, and also that she had been in the city a fortnight before her marriage.

Dr. Clark recalled a case where death had ensued in a single day, but it was after the disease had fully declared itself. Two other cases, which terminated fatally in five days, he had also seen in connexion with Dr. Bulkley.

The Academy then adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, May 7, 1866.

Dr. Thos. C. Finnell, President, in the Chair.

The President announced that the *Comitia Minora* had voted to grant certificates of membership to Drs. Wm. V. White, Edward H. M. Sell, William B. Lewis, Edward S. Dunster, Charles McMillan, and John O'Reilly.

Dr. Field, of the Committee on Diseases, reported that the mortality for April was less than in April, 1865, and that, with the exception of a slight tendency to pneumonia and rheumatism, there was no evidence of any prevailing epidemic. Two cases of cholera had occurred during the month, the histories of which were fully related, but the diarrhœa which usually precedes a visitation of this disease was almost entirely absent. The death of an old man at the advanced age of 106½ years was mentioned. The deceased was a native of Ireland, and although he had always been in good health, he died in the full belief that his days had been shortened by removal from his native land.

THE DEATH OF PROF. JOS. M. SMITH, M. D.

The President having announced the death of Prof. Joseph Mathew Smith, a member of the Society since March 13, 1820, a resolution offered by Dr. Stone to appoint a Committee of three to prepare and report suitable resolutions, was unanimously adopted. Drs. Detmold, Stone, and Bulkley were appointed, who subsequently recommended to the Society for its adoption, the following preamble and resolutions, which were unanimously adopted, and the Secretary was directed to have them published in professional and secular prints:

Whereas, Death has removed from among us our beloved and revered colleague, Doctor Joseph M. Smith; therefore,

Resolved, That while we bow in devout submission to this dispensation of Providence, we deeply mourn the loss of one to whom many of us have looked as a beloved preceptor, most of us as a tried and safe counsellor in difficulties, and all of us as a bright example of a distinguished and good Christian Physician.

Resolved, That while we tender to the bereaved family the assurance of our respectful and sincere sympathy, we may be permitted, for their comfort and consolation, to point to the long and well-spent life of the departed, the like of which is vouchsafed to few men; for he has died ripe in years, and rich in the love of his fellow-men.

Resolved, That we will ever cherish the memory of Dr. Joseph M Smith.

Resolved, That a copy of these resolutions be sent to the family of the deceased.

CHLOROSIS.

Dr. William H. Thomson then read a continuation of a paper on chlorosis, introducing the subject by narrating the history of a patient whom he saw in consultation, whose affection terminated fatally after nearly five months of suffering, from a train of singular symptoms which followed a sudden suppression of the menses, induced by exposure in a cold rain storm. The first trouble complained of was a persistent constipation, attended with anorexia and a great amount of noisy flatus in the intestines. This constipation resisted every cathartic exhibited, until finally stercoraceous vomiting set in, with great irritability of the stomach and other symptoms usually distinctive of mechanical obstruction of the bowels. After a time, however, cathartics would act occasionally with some freedom; but the color of the dejections indicated a complete absence of the bile, being as white as lime plaster, though as a rule, the intestines propelled their contents in the wrong direction, so that finally the poor girl was fed by enemata while she defecated by the mouth. Soon afterwards a like extraordinary reversal took place in other glandular organs. The urine (always when flowing loaded with biliary compounds) became suddenly suppressed, whereupon the salivary and lachrymal glands ran profusely for two, three, or four days in succession, until they also stopped for a few hours, at the end of which the bladder was full of urine, and this alternation between the kidneys and the parotids went on about twice a week for two months, generally concomitant with the analogous misbehavior in the alimentary canal, until the patient sank. Post-mortem examination revealed no mechanical obstruction in the alimentary tract, but instead, the mucous membrane and other coats of the intestines were reduced to an apparently single thin and transparent tissue.

Few, we think, who could have watched this case for weeks together would have doubted that these symptoms, extraordinary as they were, had for their original cause the suppression of the menses. It was an extreme case of a common affection, which consists in a peculiar disturbance of the particular system of nerves which secures and regulates that association of action between the many divisions of the nutritive organs, without which the component elements of the blood will fail to be elaborated. This affection has been unfortunately named chlorosis, after one of its least essential symptoms, a symptom necessarily absent in this case, for the patient never looked yellow or yellowish-green, as she happened to be a red Indian. Her malady, therefore, though exceptionally severe, was yet of the

same nature with many other cases, which, starting with a suppression of the menses, show first an arrest, and lastly a thorough perversion of the natural harmony of action between the various nutritive organs and glands.

We believe that without a clear apprehension, as a preliminary, of the regulated association in action between the many apparently independent glands and organs concerned in nutrition, we will fail to get clear views on the pathology of the affections classed under the terms, anæmia, chlorosis, hysteria, et cetera.

The general features of that inter-association, when derangements are often so perplexing, are these—first, as to the process of digestion. No sooner does a particle of food enter the mouth, whose glands at once respond to its excitation, than we find the same excitation propagated through set channels further down to secure for the savory eatable its right reception wherever it travels. The physiologist shows us what the preparation is when we find that with a hungry dog, in whose stomach a fistula has been established, the sight of a slice of meat causes an immediate flow of gastric juice from the wound. We might, therefore, say that on the entrance of every morsel each section of the alimentary canal is literally telegraphed to prepare for adequately dealing with what is coming. With the order comes also not only the requisite supply of blood, but, besides, a supply of vital power for the performance of the duty demanded. Let a gland receive through its appropriate channel the order, and all its vessels dilate, its circulation quickens, and its cells multiply, until even the veins which proceed from it pulsate, and bring away red blood. It is on account of this regulated inter-association that the state of the tongue often affords us a good criterion in judging the general nature of an affection which may reside perhaps thirty feet off in the course of the canal. But let that telegraphic order fail of reaching its destination, or let it be sent to some other part, or let it be interrupted altogether, owing to some derangement of the wires, and the immediate consequence is deficient, suppressed, or perverted proper action, whether of secretion, absorption, assimilation, or excretion. The blood-vessels will not dilate, the cells will not form, and a natural secretion will not flow, be the arrival of nourishment what it may. To maintain, therefore, true nutrition, we need first to maintain that regulated balance of life, that living influence which ceaselessly traverses back and forth from one organ to another, evolving the beautiful order and coöperation which are more wonderful than all the circular movements which the astronomer studies.

The source of this wonderful influence which presides over the infinitely varied processes of animal growth, which coördinates most diverse operations, and secures that consentaneous action which makes each perform its duty in the requisite time and manner, is derived from that most interesting part of the nervous system, well named by the old anatomist, "the great sympathetic." Its close connexion with the arteries shows how throughout the body the ever-changing distribution of the blood is by it controlled and directed according to the need of each vital act, while its ganglia or special centres are to be found near every great organ whose intermittent function demands very various diversion of force and blood, according to its state of action or rest. In the harmony of health, we find the whole process carried on through certain set channels of excitation, and, therefore, we would define chlorosis as not merely and primarily what it is termed in a leading medical work—a blood disease occurring in young females in whom the menstrual flux has been interrupted, but a disease which, beginning with a serious irritation of the ovarian plexus happening during the crisis of the chronometrical performance of one of the most important processes, soon involves through the ganglionic system of nerves every other function to whose due action the process of blood-making owes its perfection. The propagation of this irritation will, if not checked, extend to the arrest or perversion of every function in systemic nutrition, through a suspension by that irritation of the normal current of nervo-secretory excitation

This view of the nature of the primary lesion in chlorosis seems substantiated by the general change in the views of the profession as to the significance of the menstrual flux itself. The former conception of the uterus acting at such periods as an eliminating gland to remove from the system a certain quantity of too highly carbonized blood, has been abandoned, as it became clear that the essential elements of the process are to be found, not in the uterus, but in the ovaries, and that the natural flow is no more a proper uterine secretion than an epistaxis is a nasal secretion. The influence of the old view is still apparent in the therapeutics, from the means usually sought to simply secure a flow of blood, as if that constituted the whole cure in a case of suppression, though there are perhaps few practitioners who, after obtaining by the stimulating emmenagogues a fair return of the flow, have not been often disappointed by a persistence of ill health. Menstruation is not due to some excrementitious material which nature cannot get rid of only by rupturing the capillaries of the uterine mucous membrane, for ovulation and not bleeding is the essential thing, and it is to the conditions presiding over this great function of life that our attention should be directed.

How serious a sudden interference with the process of ovulation may be we can readily conceive from the peculiar relations of this region of the body, in both sexes, to the general vitality of the system, and which can be explained only through its intimate connexion with the sympathetic. No one can fail to be struck with the extraordinary susceptibility of the whole organism to any injury in this part, for we must certainly be near a vital point when we find that the most sparing and careful divisions of the knife, through which a calculus in the bladder can be removed, prove, nevertheless, more perilous than the sweeping cuts of operations on the extremities or face. It is not, therefore, the wound in the fibrous, muscular, or membranous tissues, with which the system sympathizes so profoundly, but because here is a centre of animal life, connected not alone with the physiology of the individual, but of the species. It is therefore not difficult to conceive that, with such an intimate connexion with one another, between the abdominal viscera and the relations they hold to vitality, it is primarily a lesion of the sympathetic which initiates the various disturbances of chlorosis, that end in paralysed digestion and impoverished blood. The primary irritation of the ovaries first suspends the normal chronometric increase in the pelvic circulation by shutting off the requisite nervous influence; but soon we note derangements widely removed as to their seat, but not as to their nervous connexion with the pelvis. The entire alimentary apparatus, from beginning to end, commences to act strangely. First of all, the nervous sensation of hunger disappears, to be replaced perhaps by the most curious and capricious manifestations indicative of perverted nervous transmission. The stomach frequently rejects food, or deals with it most uneasily. The liver equally fails in its action, as shown by the scanty and light-colored discharges. The secretions of the whole intestinal canal change in character. The nervous paralysis shows itself in a persistent constipation, owing to suspended peristaltic movements. The

nervous irritation does not confine itself only here, for the derangement in the distribution of the circulation is apparent in the cold feet and hands, while finally, as a natural result of these initial derangements, the formation of the blood becomes impeded, and we have the peculiar anæmia which was formerly considered the cause rather than the effect of this disease.

We have dwelt thus long on the pathology of this affection, because of the necessary connexion which such views have in determining the measures which we should adopt for its treatment. Thus, in the first place, the nervous in contrast with the hæmatic view of the pathology of chlorosis, would lead us to pay early attention to the persistent coldness of the feet, so generally complained of in these cases. Were this the result simply of poor blood, we should find it in the anorexia of phthisis, or cancer; but there is something distinctive in this symptom of uterine disturbance. In a case of displacement of the uterus, in a lady past middle age, caused by lifting, I found almost complete suspension of circulation suddenly occurring in the whole lower extremities, which passed off and warmth returned in a few moments after replacing the organ. That the distribution of the circulation in widely separated parts of the body is regulated according to nervous impressions, which are restricted to set channels, is too well known to need our citing more than one illustration. Brown-Sequard has shown that if a piece of ice be held in the palm of one hand, a thermometer held in the other hand will immediately show a decrease of temperature in that hand, which is not owing to the ice having cooled the whole body, and therefore the hand which holds the thermometer also, for thermometers placed in the axillæ manifest no change. The hand which had no ice was therefore cooled only from its nervous connexions with its fellow. Now, as injury at the nape of the neck affects the pupil of the eye, and cold applied there arrests an epistaxis, so will the impression of cold applied to the feet affect first the ovarian plexus and suspend the local determination of blood necessary to the function of ovulation; but also, *vice versâ*, let irritation be located in that plexus, and the circulation in the feet is sure to be impeded, while in other parts, as the head and face, the patient will complain of flushing heat and throbbing temples. We believe, therefore, that it is of real practical value to persistently endeavor to restore this disturbed balance of the circulation, for we have never seen a case of chlorosis that did not at once improve if the feet were kept warm for one whole day. This symptom often precedes for months every other of the more recognised signs of disordered menstruation, and we have often found that by attending to it alone we have markedly relieved other common female ailments, especially dysmenorrhœa and leucorrhœa. Our usual measures for this purpose have been a hot pediluvium, acidulated slightly with nitro-muriatic acid, at night; then in the morning to have the feet and legs rubbed with warm olive oil, which friction very soon causes to be absorbed so as not to soil the clothing in the least; and lastly, the old woman's remedy of rubbing black and red pepper in the stockings. The foot-bath should be as hot as possible, to escape the weakening influence of merely warm water, and secure the stimulating influence of heat, which is the only agent to be desired in such a case; nor, after the protective use of oil, have I found any increased susceptibility to catching cold from this treatment, though kept up for a long time.

Beginning with the other functional derangements in the order of their appearance, we come to the measures taken for the restoration of the appetite, and we would only remark that in the anorexia of females we have found no agents to compare with the mineral acids. We have repeatedly disgusted such patients with bitters, with no other result than no very pleasant feeling on their part towards physicians prescribing such disagreeable medicines. These patients, however, often crave sour things; and the nitro-muriatic acid especially, I have found to answer admirably. It may be recollected then, in the history of the case detailed above, we found this acid to produce a really tangible cholagogue effect, and I have no doubt that its reputed property of stimulating the liver has a substantial basis, and that its failure, as there stated, is generally due to the defective quality of the preparation. If so, this, taken in connexion with the torpidity of the liver in this disease, would seem to recommend its use, while it can hardly do any harm.

Constipation is another main symptom, and one of the most important of all. Some one has defined a woman as an animal who always has a pain in her side, and locked-up bowels. We have already adverted to the probable cause of the latter common sorrow of the sex—namely, nervous paralysis or deficient peristaltic action. But we cannot, on that account, fall in with the common practice of the use of cathartics in the treatment of chlorosis, except to a limited degree. We think this end can be reached, especially in weak and anæmic patients, without recourse to any exhausting discharges. We are not called in chlorosis to eliminate anything; and while small doses of aloes are undoubtedly beneficial, we regard that as owing more to their stomachic and stimulating effects than to their cathartic properties. Some physicians speak of the necessity of washing away by catharsis the slimy mucus which lines the intestines in these cases, and prevents the absorption of aliment; but if it was possible it would immediately form again, if the intestinal glands remained in the same condition as before. The agent which has oftenest given me satisfaction in relieving this, perhaps the commonest complaint addressed to a physician, is belladonna. I was led to try it by an article on its laxative properties by M. Hirtz, of Strasbourg, to which I paid the more attention from having noticed that its prolonged use had induced looseness of the bowels in three patients of mine, to whom I had administered it for nervous diseases; one of which, a male, had epilepsy, and another, a female, an asthmatic affection dependent on cardiac disease. M. Hirtz ascribes its laxative power to its relieving spasm of organic muscular fibre, which is owing to nervous irritation, and that in this way it relieves in women the constipation which is dependent on deranged nervous action from organic disturbance. However that may be, I think it will often prove a valuable remedy in such cases, without any disadvantage like inducing either exhaustion or interference with appetite. But in addition to belladonna we have another agent which, though not classed among cathartics, yet in these cases answers the purpose still better—namely, nux vomica. Owing to its reputed property of stimulating peristaltic action, it has been often administered for this purpose, and I have no doubt that it is of real advantage, and that it does not interfere in the least with the action of belladonna, but that the two rather coöperate to the same end. To secure, therefore, a natural and regular action of the bowels, with slight catharsis after prolonged inaction of the bowels, I have been accustomed to prescribe at night one pill, compounded of extract belladonna, gr. ¼; ext. nucis vomic. alcoholic, gr. ss.; extract colocynth co. gr. iij. In a few cases a second pill in the morning is necessary at first to induce the bowels to act; but soon one is found in my experience to be sufficient, and I have tried it now in a sufficient number of patients who had long used other means ineffectually, to make me quite confident of its benefit.

Of the other therapeutic measures for such cases which suggest themselves to all physicians, I will not now speak, except to refer briefly to the use of iron. This remedy, which has become routine because so valuable, is like all routine remedies, often given with poor if not bad results. One great reason of this is, I think, owing to the faulty way in which the mode of its action is explained to the medical student. He is told that chlorosis is a disease in which the red corpuscles are deficient. Iron is a part of the red corpuscle—therefore the real logic of the case, as put to the student, is—give iron and you will have red corpuscles. After the same fashion it was formerly reasoned, that to cure rickets, which consisted in a deficiency of phosphate of lime in the bones, give phosphate of lime. But such attempts are not a whit more reasonable than the Irishman's plan of having his cow milk ice-cream, by feeding her with a bucket of snow. Let all the iron possible be sent down the œsophagus, and if it is not digested, absorbed, and then assimilated as systemic food, just as the albuminous part of a beef-steak is, then it had better been introduced into the patient's pocket than into his stomach. For a particle of iron to become part of a red corpuscle, it has to be submitted to a vastly more complicated process than is requisite for a piece of that metal to take its place as a mainspring in a watch; and it is no more reasonable to suppose that we can remedy anæmia simply by administering iron than that we could mend a watch by putting it near a bag full of watch-springs. Something has to come between in either case to make the iron fit. We repeatedly see the administration of iron followed by anything but cure, and perhaps the main cause of failure is from the overloading which the mechanical physiology above alluded to induces. We would naturally expect a starved patient to be distressed with unexpected bounty which required him to dispose at one meal of ten times as much meat as he ever ate when he was not starved, but that is not relatively greater than is fifteen grains of solid iron a day made skilfully soluble by modern chemistry. In a healthy state all the iron which the blood needs reaches it in such infinitely divided and small doses through the food, that it would require a delicate test or scale to compute its daily renewal, nor do we believe it can ever become part of a blood corpuscle without coming in that shape and quantity. Meanwhile we administer it to delicate females with weak powers of digestion, giving them with each dose enough to last a month, and we need not wonder at the blackened fæces which show us where our iron is, nor at the nausea, headache, and dyspepsia which we have induced. In our experience two grains of the citrate of iron, combined with tincture of nux vomica and tincture of quassia in glycerine, act more speedily than ten grains, and with much more comfort to the patient.

We would allude, in closing, to but one other agent, and that is phosphorus. This administered in the form of four grains dissolved in one ounce of olive oil, of which the dose is from ten to fifteen drops, has, we think, oftentimes proved of essential service. Its chief effect we are disposed to attribute to the powerful influence of this medicine in stimulating the circulation. It is a favorite remedy on this account with me in the treatment of epilepsy, in which disease I think I have noticed a habitual weak state of the pulse during the apparently healthy interval between the attacks. In chlorosis I think it acts by restoring general circulation and heat, and only indirectly as a local excitant to the pelvic organs. But in my experience it is only the substance itself in solution which has these properties; and when given as above directed, I think it is a perfectly safe agent. Phosphoric acid seems to me to be almost inert, while of the hypophosphites I have no experience in these affections. In reference to the local or stimulating emmenagogues, such as the terebinthinate class, I have very little faith in their being more than adjuvants, to be used both cautiously and sparingly. It is not a flow of blood that we so much need, as a restoration of the chronometry of life; and without a vast renewal of this, the most striking phenomenon in the deep laws of nature, we will accomplish little though our efforts ended in a great show of blood.

Dr. Peaslee spoke of Dr. Thompson's paper as progressive, containing some new points, and those not new were put in a very practical way. It was very important that the feet should be kept warm, and this might be accomplished by immersing them in cold water every night at bedtime. The susceptibility of the system to the effects arising from exposure to cold might by this method be greatly diminished. An intelligent woman, aged sixty years, was sorely troubled with a bronchial irritation which could thus be prevented, but would return whenever the cold pediluvium was discontinued.

When there is constipation of the bowels, the liver should generally be acted upon. A pill given three times a day, compounded as follows, he had found useful:

℞ Extract. Belladonnæ, gr. ½; Ext. nucis vomic. alcoholic., gr. ⅙; pil. hydrarg., gr. ij.; ext. colocynth co., gr. j.—jss.

In some cases extract. aloes aquos. might be advantageously substituted for the colocynth. Iron, as usually given, was injurious. Our posology was derived from the English, and one-half the quantity mentioned in their works was generally amply sufficient in this country. The tinctura ferri chloridi might be given in five-drop doses largely diluted with water. The syrup. ferri iodidi, in the same quantity, ten drops of this being a large dose. The best chalybeate in this disease was the ferrum redactum, in doses varying from gr. j. to gr. iss., never exceeding gr. ij. One-sixth of a grain of capsicum might be combined with it, and in cases of nervous excitability, extract of hyoscyamus.

Dr. Chas. F. Taylor then read a paper on

"THE INITIAL CAUSE OF LATERAL CURVATURE OF THE SPINE."

The term "initial (or real) cause," is used for the purpose of drawing the attention from the *immediate* cause, which would be apparent to any ordinary observer—muscular weakness.

There are several varieties of lateral curvature produced by different causes, such as rachitis, paralysis, local arrest of development, reflex spasmodic muscular action, distortion of the limbs or joints; in fine, anything which disturbs dynamic equilibrium. Without noticing in this paper cases produced by such causes, we shall consider those other cases, which probably amount to four-fifths of the whole, and which owe their origin to a common cause.

A girl of twelve or fourteen years, in fair health, is found to have one shoulder higher and projecting further backward than the other, and the spinal column is seen to be more or less bent to one side. Here the apparent cause is weakness of the spinal muscles. There can be no doubt but the column bends by reason of the superincumbent weight being greater than the muscles can support. But what causes these muscles to give out? Not because of any weakness in themselves. Nor can the distortion be looked upon as actual disease. The spinal column is mechanically, not pathologically affected. Its muscles fail to give it adequate support for the

weight resting upon it, and consequently it bends; and if the weight continues long enough without adequate support, it remains bent. So much for the spinal column. How is it with the muscles? They are not the immediate cause of the curvature, are not in a pathological condition. Indeed, the form of curvature we are now considering, often occurs where there is every evidence of active nutrition and growth. To one source only, then, can be traced the *initial* cause of lateral curvature—the nervous system. The muscles fail to give support to the column from deficient innervation.

We find that these curvatures generally begin from the twelfth to the fourteenth year, or in other words, at the period of most rapid growth; and it is noticeable that those growing with the greatest rapidity are most liable to curvature. Then besides the growth, which is an exhausting process, both in vegetable and animal life, the girl, as she approaches puberty, finds all her powers taxed in no small degree to fit her for those special functions which she shall be called upon as a woman to exercise. But nature is kind if she be only allowed sufficient time for her work. And nature has decreed that a certain portion of life shall be devoted to growth and development. Now, as a very general rule, we find the subjects of lateral curvature living amidst the friction of intellectual and refined society. The brain and nervous system are strained, and the physical powers are subordinated to the mental. Unless this order be reversed, the patient will suffer. It is not too much to say, indeed it is the real truth, that *the lateral curvature begins in the brain.* Dull and stupid girls do not get this form of curvature. The school-girl's *position* has much less to do with lateral curvature than is generally supposed. It is rather her close attention to study, at a time when she has little nervous power to spare. If a law could be enforced that no girl should attend school from twelve to fourteen years of age, we should see few crooked spines in girlhood, and hear much less of "spinal irritation" and backache in after life. In prescribing for these cases of incipient curvature, in very many cases the directions have simply been to take the girl from school, have her lie down much of the time, avoid study and excitement of all kinds, do nothing, think of nothing, keep quiet, and grow. In a few months the patient would return entirely cured. It is the rule that if we can get the cases in their incipiency, before the osseous structure has become hardened, and if we can protect them from waste of nervous force, we can rapidly cure them. The difficulty is to make parents understand the great necessity for this protection. Mothers will hold up their hands in horror at the idea of one or two years spent away from school. But this direction must be insisted upon. There is no room for compromise here. We must be absolutely inflexible in our demands The mother and daughter should be told that it is not intended to abandon, but only to interrupt, the mental activity, until nature has had time to gather up her forces, when the brain-work may go on again with impunity. But if we temporize at this stage, and wait a year or two hoping that the patient will outgrow the trouble, it will be too late; we cannot then cure, we can only palliate. If, in this early period, while the bones are soft and elastic, the debility, as manifested in the curved spine, be not removed, the patient's health may afterwards become ever so robust, but nothing short of long, tedious, forcible effort will bring back (and that not perfectly) the spinal column to its proper position.

The Society voted that the papers read by Drs. Thompson and Taylor should be the special subject for discussion at its meeting of June 4, 1866.

The President announced that Dr. Alonzo Caulkins would at that meeting read a paper entitled, "Dysentery without the Intervention of the Doctor—A case."

EAST RIVER MEDICAL ASSOCIATION.

ADJOURNED MEETING, MAY 10, 1866.

DR. JOHN HART, President, in the Chair.

DISCUSSION ON MENINGITIS.

DR. TRUMAN NICHOLS, in behalf of the delegates from the Association to the *American Medical Association*, gave a summary of the proceedings of that body, and warmly eulogized the hospitality of their hosts at Baltimore.

Dr. WM. NEWMAN then opened the discussion on *Meningitis* according to previous appointment. He remarked that *tubercular meningitis* was by no means a rare disease in childhood. It was then that the brain, stimulated by impressions as yet novel, cannot be otherwise than expected to take on an occasional deranged action. The disease most frequently occurs between the period of dentition and the age of five years. The base of the brain shows the greatest amount of inflammation; and beneath the *arachnoid membrane* there may be some softening of the cerebral surface, accompanied by chalky white lines along the upper portion, to which the element of increased vascularity is superadded.

According to Professor Alonzo Clark, the characteristic lesion in the acute form of the disease has the appearance of a number of small whitish grains on the membrane at the base of the brain. These are supposed to be tubercles, and are composed of a fibrinous material. Children of a strumous diathesis, either inherited or acquired, are most liable to be attacked by these tubercles, which, aroused from a condition of dormancy, eventually originate effusion. The diagnosis may be confounded with fever of the *remittent, intermittent,* or *continued* type. Attention should be directed to the tongue, which in meningitis remains moist; to the pupils, which are dilated; and to the bowels, which are almost invariably costive. The usually pale face, occasionally lighted up by a bright red spot on one cheek, perhaps stridulous breathing, a marked photophobia, and an unexpected convulsion, change suspicion into the conviction that a dreaded enemy is aroused to action. The pulse becomes irregular, the patient drowsy and inclined to extend its head back upon the pillow and at the same time to roll it from side to side. The clenched hand with thumb turned inwards towards the palm, and vomiting more or less severe, are also valuable signs.

With the increased pressure consequent upon a further accumulation of fluid, the symptoms become aggravated, strabismus may appear, the convulsions increase in frequency and violence, and paralysis, complete or partial, supervene.

Professor Clark says that not more than one in six cases recover without some physical derangement, chiefly of the sight or hearing, but the functions of these may be restored after a few months.

The treatment consists in an evacuation of the bowels by enemas; leeches to the temples or behind the ears; cold affusions or evaporating lotions to the head, warm pediluvia, sinapisms to the feet, calves of the legs, and inside the thighs alternately; warm baths, antimonials, and diuretics; calomel from 5 to 10 grains, followed by smaller doses of from 1 to 2 grains every two, three, or four hours, until the total of 20 grains in all shall have been attained; croton oil, rubbed up with calc. magnesia from ½ to 1 drop every two hours, until the bowels freely respond; and the iod. potass., which after all is the

only reliable diuretic in these cases, may then be administered, in doses of from one to five grains every two hours.

In the comatose condition, pustulation by well diluted croton oil or the ung. tart. antim. et potass., may be resorted to, with perhaps some benefit. A quiet, cool, well ventilated chamber should also be insisted upon. He had witnessed surprising and gratifying results, when he wished to procure sleep, from the ext. hyoscyami, in doses of from a ½ to 2 grains every two, three, or four hours.

Dr. N. then closed with a graphic summary of the symptoms and diagnosis of the meningitis of adults, indorsing blood-letting in the acute form as a valuable therapeutical agent; but enjoining caution in the use of this remedy in the subacute form. He passed in review the claims of calomel and croton oil in purgative doses, iod. potass., and the agents before alluded to.

When meningitis was a complication of Bright's disease, not much could be expected from any remedy; but he would in particular ostracise the iodide of potash.

Dr. Abbot adverted to the peculiar sighing respiration, which in the infantile form of the disease he regarded as a pathognomonic symptom. His experience had convinced him that small repeated venesections were by no means as effectual as one strong full bleeding, and this plan Dr. Marshall Hall vigorously advocated. He also alluded to the method of mercurial inunction applied to the scalp after extensive vesication. This was recommended by a recent writer, but he had known of no instance where the plan had been adopted.

Dr. Skiff had found, when the second stage had fairly set in, that the cod-liver oil, especially where the tubercular element was present, had given results quite satisfactory.

Dr. Newman was in the habit of using the article in the cases of all children convalescing from depressing diseases. In reply to an inquiry of Dr. Morse, he stated that cream, when attainable, was equally good, and that he did not endow the cod-liver oil with any specific virtues. Besides, as far as results were concerned, the oil derived from the "head matter" of the whale, and quite extensively sold for cod-liver oil, was more generally given than supposed. He would rely upon very few experts in the detection of this fraud.

Dr. Hart had noticed among the symptoms of the disease in children, that described by Eberle under the quaint designation of the "odor of mice." He had found when anodynes were admissible that the ext. hyoscyami, particularly in combination with camphor, had been none too highly extolled by Dr. Newman. He also valued the pill of calomel, digitalis, and squills, as an excellent diuretic, but was disposed to be rather sceptical of the virtues of the iodide of potash.

Dr. Nichols dissented to this last view of Dr. H., but deemed hyoscyamus to be much more reliable in its effects than conium, which many used. Warm fomentations assiduously applied over the region of the kidneys, he had known to be followed by a copious renal secretion.

A CASE OF SUPERFŒTATION. (?)

Dr. Abbot related a case, which had recently occurred in his practice, where, immediately succeeding a delivery of twins, a well preserved three months' fœtus was born.

Dr. Burke was of the opinion that this was an instance of arrested development, unattended, for some reason, by decomposition, rather than as might be inferred of superfœtation. He recollected a case which had occurred quite early in his practice, where there was an interval of three months only between the births of two full term children. This anomaly was found to be owing to a double uterus.

The meeting then adjourned.

Erythroxylon Coca.—Dr. Reis, in the *Bulletin Gén. de Therapeutique*, of Feb. 28, 1866, writes with regard to the Erythroxylon Coca:

"In January, 1863, as some of my colleagues may remember, I published an account of some experiments made with the leaves of the *erythroxylum peruvianum*, *erythroxylon coca*, a plant which is used by the Indians of Peru as a masticatory, in doses of fifteen to twenty-five grammes daily, for the purpose of enabling them to undergo fatigue, hunger, and thirst, or the severe labors of the mines.

"I have subsequently verified the powerful yet inoffensive efficacy of this substance as a nervous stimulant. On the one hand results are augmented, and continued activity of the mental faculties, rendering elocution easy and animated, and inspiring resolution, courage, and perseverance; on the other, an increased disposition to muscular action as shown by facility in locomotion, which can be continued without fatigue for a long period during the mastication of the coca. Hence, my observations have led me to regard this stimulant as an agent well adapted to distract the mind from its habitual cares, and sustain temporarily the vital forces, with or without a moderate use of food. Doses of two, three, or four grammes of coca, renewed at seasonable intervals, are sufficient to produce these physiological effects.

"The experiments of MM. Gorse and Mantegazza have, however, shown that in large doses the Peruvian leaf causes an acceleration in the cardiac contraction four times greater than that produced by tea, more than twice as much as that resulting from coffee, and at least a third greater than that which follows the employment of the Ilex maté. When used in doses of thirty to forty grammes, an intense fever, accompanied with hallucinations and delirium, follows. Being among the first to call attention to the prompt, energetic, and almost poisonous action of the coca, I cannot but recommend its employment in diseases characterized by marked depression of the nervous and muscular system, and particularly in cholera."

Dr. Reis then goes on to state that he has used it during the recent epidemic, but adds that no severe cases came under his observation. In a few in which algid symptoms began to make their appearance, and the pulse was small and almost imperceptible, the use of the remedy was followed by apparently good results. It may be administered in the form of elixir, syrup, extract, infusion, masticatory, or may be smoked like tobacco. The experiments made in this country with the coca do not confirm the very sanguine opinions of Dr. Reis. The results have been contradictory. It is, however, a remedy worthy of further examination, since if half which has been told of it were true it would be very valuable in some nervous diseases.

Drs. N. Edsen Sheldon, of Glen's Falls, M. L. Lee, of Fulton, John G. Orton, of Binghamton, and Dr. H. C. May, of Corning, have been recently appointed Trustees of the New York State Institution for the Blind for the fourth, fifth, sixth, and seventh Judicial districts, respectively.

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, M.D., EDITOR.

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FOREIGN AGENCIES.

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New York, June 1, 1866.

OVER-CROWDED EMIGRANT SHIPS.

"AN approaching pestilence," says some one, "unearths unsuspected filth." Probably had there been no fear of a choleraic visitation the secular press would have sounded no note of alarm regarding the condition of those whose means compel them to seek the miscalled comfort of a transatlantic trip in an emigrant ship.

We are informed, according to the statement of certain passengers on board the recently arrived steamship Queen, from Liverpool, that "the berths were only twenty inches wide, arranged in tiers, each tier forming a compartment about thirteen feet in length, ten in breadth, and eight in height," and that "twenty-four persons occupied one compartment."

With such a state of affairs, we are of course prepared to believe that "the foul smell in the compartments, especially during a gale of wind, which lasted the greater part of three days during the first week of the voyage, was intolerable. During the gale it was impossible for women and children to go on deck, and the stench in the steerage during that time was abominable."

"The most nourishing part of the food," says one who confesses to have traversed the Atlantic as a steerage-passenger out of eccentricity, "is served in the cabin." He complains of poor food, thirst, and the drinking of stagnant water, no washing, no undressing, filth in the hold of the ship, filth everywhere. We quote another paragraph in the protest, already cited: —"The dinner was fair, but in serving it out many often received none, owing to the insufficient number of stewards, and the small space allowed for passengers." In other words, during the scramble for food the strong were unmindful of the necessities of the weak, and the high order of talent required for the proper manipulation of large crowds was found wanting. To correct these very evils, Congress, by the Act March 3, 1855, provides "that no vessel shall have more than two tiers of berths; that the interval between the lowest part thereof and the deck beneath shall be not less than nine inches; that the berths shall not be less than six feet long and *two feet* wide, and no such berth shall be occupied by more than *one* passenger; that every apartment shall be *well* ventilated; provided with cabooses or cooking ranges;" that the apartments shall, "*at all times*," be kept "*in a clean, healthy state;*" that the decks and all parts of the apartments shall be so constructed that they "can be thoroughly cleansed;" and "a safe and *convenient* privy, or water-closet, for the exclusive use of every one hundred such passengers."

But the law-making principle being slightly in excess of the law-venerating element, particularly where inadequate penalties only add a piquancy to the violation of a well intended enactment, these waifs of humanity become the natural prey of venal corporations, that, in effect, even cut short their rations of untainted air. Let the owners of these liners be taught their responsibilities, as a cotemporary suggests, "by confiscation and forfeiture," instead of being *threatened* merely with a paltry fine of fifty dollars for carrying an illegal number of passengers, or of five dollars for every passenger in the event of the violated provision in the construction of the berths, etc., or of two hundred dollars for each failure to have the prescribed houses over the passage-ways, or the ventilators, or the cooking ranges, or the privies. We will admit that the statistical tables of Mr. Casserly, the Secretary of the Commissioners of Emigration, regarding the Atlantic steamship passenger-travel for the years 1864 and 1865, are most satisfactory exhibits; that one death to a thousand steerage-passengers, and only one to every 3,080 over eight years of age, are facts not quite as startling as the mortality ists of the Crimean war; we might even go a step further to prove that "Simon the Cellarer" *may* grow hoary-headed, but spare ourselves the task by propounding instead an enigma in which the cholera and the steerages of certain vessels can not well be omitted features. The power for mischief then being merely latent, not absent, we cannot but applaud the action of the present Congress, in pausing to devise means to secure the physical comfort of the immigrant, and through him to ward off, as far as human agency may, the attack of an impending pestilence.

WE regret to make the announcement that the building of the University Medical College of this city was completely destroyed by fire on the night of the 21st of May. The valuable museums of Professors Mott and Post have been entirely lost, together with the immense and costly laboratory of Professor Draper, and the rare collection of shells and minerals belonging to the Lyceum of Natural History. Notwithstanding, however, this appalling catastrophe, we are happy to be able to state that the Faculty have not allowed a single day's intermission in the spring course of lectures. The upper

portion of the Demilt Dispensary is now being temporarily used for a lecture-room. The friends of the College will be glad to learn that the institution is to be at once rebuilt, with many additions, and that the work will be carried on as rapidly as possible.

Reviews.

Successful Removal of the Uterus and both Ovaries, by Abdominal Section; the Tumor, Fibro-Cystic, weighing thirty-seven pounds. By Horatio Robinson Storer, M.D., of Boston. Philadelphia: Collins, 705 Jayne street. 1866.

This procedure, in the event of carcinoma, was merely proposed by Wrisberg in 1787, and again by Gutberlat in 1814; but it has been within a comparatively recent period that surgical interference to the extent indicated was attempted for the benign variety of tumor. Dr. Storer's case, as far as the attainable records go, is the sixth successful one. The details of this brilliant achievement, necessarily condensed, are as follows:—An unmarried lady, aged 47, whose catamenia had not yet ceased, in good health until within a period of five years prior to August, 1865, became conscious of the existence of an abdominal tumor, which soon began to steadily increase in size, until she became larger than a woman at the full term with twins. The diagnosis was rather by exclusion, and by no means certain. The operation, after the necessary preparations with a view of insuring as light a burden to the system as possible, was undertaken, with the assistance of Drs. Dix, Langmaid, and Tyng, on the 23d of September. Anæsthesia by ether was readily produced, the bladder emptied by catheter, and an incision of five inches made within the track of the right rectus muscle into the abdominal walls from just below the umbilicus downwards. The division of the several layers was carefully effected upon a director, and the very dark purple-hued tumor, which almost completely filled the abdominal cavity, exposed. To this adhered a very highly vascular omentum, the vessels of which were in part divided *en masse* by scissors, and the resulting hæmorrhage controlled by wire ligatures and torsion, while in a few of the instances resort was had to ligation before division. Upon the left of the tumor, and deep down, there were other extensive peritoneal adhesions, which were partly broken down and partly severed. The mass was now found continuous with another, also of large size and of very irregular outline, completely filling the cavity of the pelvis. For the sake of convenience in manipulation, a separation of the mass was effected by the écraseur, and the external opening enlarged by half an inch to allow extraction. The pelvic mass was found largely attached laterally, the morbid adhesions being chiefly to the left, very firm and vascular. Elevated sufficiently, although with great difficulty, to allow the passage of a clamp beneath to guard against opening the vaginal septum, the mass, as far as its broadened cervix was concerned, was, after much taxis, fully engaged, and excision accomplished by the écraseur. But owing to the firmness of the tissues and the cramped room, the jaws of the clamp were opened throughout nearly the whole of its extent, so that it fell from the stump the moment the tumor was cut away. Some six additional open vessels were treated by wire ligatures, several more twisted, and the operation practically completed. For the free blood oozing from the extensive surfaces of adhesion, alcohol and long exposure to the air were employed. In the interval, the blood in the cavity of the pelvis was finally sopped up by sponges, after repeated unsuccessful attempts for its removal by suction through a syringe and the use of a silver spoon. The incision was at length closed by the insertion of five wire sutures passing through the peritoneum, and the abdominal integument allowed to remain perfectly nude, and only protected from the bed-clothes by an appropriate wooden frame. During the operation, notwithstanding the flagging of the pulse, the ether was continuously administered to the extent of two pounds and a half.

The diet for the first day was nothing but ice; for a day or two subsequently, flour porridge with milk, or milk gruel, was repeatedly given. From this point greater latitude was allowed—twenty-four pounds of beef being consumed during the first month. From the onset, the pulse hardly exceeded one hundred. There was no nausea or vomiting; scarcely any jactitation was noticed, and but little pain or flatulence. No motion whatever of the body was permitted for ten days after the operation. Catheterism was employed until the third week to prevent effort on the patient's part, and on the fourth day a suppository of half a grain of morphia was introduced into the rectum for a like purpose.

An enema, however, on the sixteenth, and a natural stool on the eighteenth day, evacuated the bowels. The adhesion of the lips of the abdominal wound, which had not at all gaped from the beginning, was completed upon the third day; and the wires, untwisted on the tenth, were finally removed on the fourteenth. On the twenty-first day the patient sat up, on the twenty-eighth was out of bed, and on the thirty-seventh returned home from the hospital.

The first vaginal examination since the operation, which was made November 9th, discovered the cervix reduced to a mere nodule, and button-shaped. This loss of substance, the surgeon thinks, was due to the necessary stretching upwards of the pelvic mass, and consequent encroachment upon uterine tissue by the clamp and écraseur.

The tumor, now in the Medical College Museum, weighed in all thirty-seven pounds; the pelvic mass weighed eight, and the abdominal sixteen, after thirteen pints of fluid had been drawn from it. The character and relations of the mass were fully demonstrated before the Suffolk District Medical Society, on September 30th, by Professor I. B. S. Jackson, and Professor Calvin Lewis's examination leaves no doubt of the removal as indicated by the title.

The body of this interesting pamphlet is made up of the statistics and literature of the operation, interspersed with much ingenious reasoning and decidedly original views.

Eulogy on the late Valentine Mott, M.D., LL.D. By Alfred C. Post, M.D. Delivered before the New York Academy of Medicine, Nov. 27, 1865. New York: Baillière Brothers. 8vo., pp. 30.

Professor Post has, in the eulogy before us, given to the profession a very full and interesting history of the "Father of American Surgeons." He traces him from his cradle to his grave, and pictures the character of this great surgeon, not only as a professional man, but as a citizen and Christian. The narrative is truthfully told, and all the different points in the character of the distinguished subject of his sketch are well presented. The likeness of Dr. Mott which faces the title-page is well executed, and with the exception that it gives him a rather older look than belonged to him, is lifelike. The work is got up very tastefully, and is well printed. Every student and practitioner should become the possessor of this chaste memoir.

A Manual of Blowpipe Analysis and Determinative Mineralogy, by William Elderhorst, M.D., Professor of Chemistry in the Rensselaer Polytechnic Institute; Third Edition, revised and greatly enlarged. Philadelphia: T. Ellwood Zell, Nos. 17 and 19 South Sixth street, 1866.

Blowpipe Analysis is a department of science of very modern growth, when compared with the antiquity of many of the other appliances of heat. The art was founded and almost perfected by such men as Swab, Cronstedt, Von Engeström, Bergman, Gahn, and Berzelius. Very few advances have been made since the publication of Berzelius's Treatise, until within a very few years, when, in the hands of the German adepts, it accomplished quantitative results, while the ancient processes were extended and improved. Blowpipe analysis at the present time is, for practical purposes, a perfect science. It is of especial interest just now, as being, in connexion with certain discoveries in another department of the science, the germ of that most extraordinary result of modern chemistry—the "Spectral Analysis." The importance of a knowledge of the use of this instrument is now beginning to be universally recognised, furnishing as it does to the analyst a ready and swift result, to the experimenter an inexpensive trial, and to the mineralogist an unerring means of diagnosis, while the physician views with interest its applications in toxicology and the determination of calculi. The republication of this standard manual will doubtless be viewed with favor by student, teacher, and practitioner.

A manual on the blowpipe should be a very small affair that will readily slip into the coat-pocket, for it will be more frequently referred to in the field than in the work-room: we see at the first glance that our author has made this provision for the convenience of the student. The type too is large and distinct; but notwithstanding the small book and the large type, there is no improper excision of valuable matter, this point being gained by the adoption of a very condensed style —a great portion of the work being in the tabular form. This work is peculiarly adapted for the use of the beginner, and was "designed to serve as a text-book in the instruction in Blowpipe Analysis and Determinative Mineralogy, in the Rensselaer Polytechnic Institute." It has been endorsed by Professors Brush, Joy, Booth, Gibbs, Genth, Egleston, Chandler, and others.

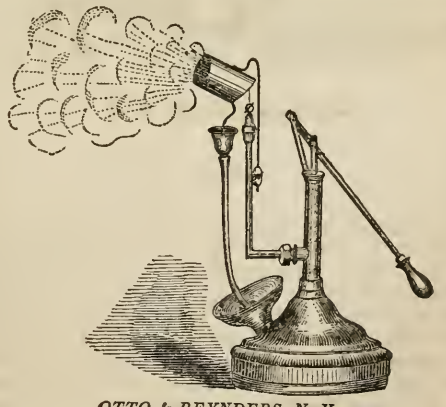
The first chapter treats of the auxiliary apparatus and reagents. The second gives the general routine of blowpipe analysis. A few engravings would not have been out of place in the two first chapters. In the third chapter we have special reactions for the detection of certain substances when in combination with others. The fourth chapter introduces us to the characteristics of the most important ores, their behavior before the blowpipe, and to solvents. This chapter "has been considerably enlarged by increasing the number of species, and by adding an Appendix containing the description and blowpipe reactions of the various kinds of fossil fuel." The fifth chapter is devoted to a systematic method for the discrimination of inorganic compounds. It is a slightly altered translation of the "*Division dichotomique pour reconnaître les minéraux*," from Laurent's "*Analyze au Chalumeau.*" The sixth chapter (not contained in the first edition) is on the discrimination of minerals by means of the blowpipe, aided by humid analysis. It is extracted from F. von Kobell's "*Tafeln zur Bestimmung der Mineralien.*" The book concludes with a series of three tables: Table I., on the behavior of the alkaline earths and the earths proper before the blowpipe; Table II., behavior of the metallic oxides before the blowpipe; Table III., the metallic oxides arranged with reference to the colors which they impart to the fluxes.

We notice that in the second section, page 21, which treats of the proper flame to be used, the sperm candle, the blowpipe lamp of Berzelius, and especially the common fluid lamp, is recommended; but no notice whatever is taken of that simple modification of Bunsen's burner now so extensively used. We can find no allusion to the use of the wedge containing a blue solution, or to the employment of colored glasses in the determination of a mixture of alkalies. Although these methods cannot compare with the refinements of prismatic observations, they are still of definite va'ue in the blowpipe analysis. Section eighty-nine, page 52, on the flame of lithia; and section ninety-seven, page 55, on the flame of potassa, are quite behind the age: the apparent elimination of the characteristic effect in these two cases by the presence of soda meets with no remedy in the text, and yet there were simple means of overcoming the difficulty before the introduction of the spectroscope.

New Instruments.

SPRAY-PRODUCING INSTRUMENTS.

So much interest has of late been awakened in reference to the treatment of disease by means of "pulverized fluids," that we have determined to present our readers with accounts of some of the most approved instruments that are now being used for that purpose The honor of originating this new method of treatment belongs to Sales Girons, who exhibited, in 1858, an apparatus for atomizing fluids before the Academy of Medicine, of Paris. Girons's instrument, by means of compressed air, forced medicated fluid through a tube with a fine aperture against a metal plate. By this procedure the stream of fluid was suddenly arrested, and was broken into a fine spray. The principle of the apparatus is exemplified in Fig. 1.



OTTO & REYNDERS, N. Y.

Fig. 1.

Dr. Bergson, of Berlin, next constructed an apparatus which was much simpler and more ingenious. It consisted of two glass tubes, each having a capillary aperture at one extremity. These capillary extremities were arranged at nearly right angles to each other, as

seen in Fig. 2. By blowing through the horizontal tube the current of air in the perpendicular tube is exhausted, the medicated fluid in the vessel rises to sup-

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Fig. 2.

ply its place, and reaching the capillary orifice is instantly divided into spray.

Dr. Siegle, of Stuttgart, has constructed an instrument by which Bergson's method of vaporizing is modified by using steam instead of air. The principle of this apparatus is shown in Fig. 3.

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Fig. 3.

It consists of a copper boiler, A, fastened to a brass spirit-lamp, B, provided with a screw to regulate the amount of flame. To the tubular top of the boiler, the horizontal, the steam tube, C, terminating in a capillary orifice is attached. This is connected at nearly right angles with a perpendicular or exhausting tube, D, so that the upper extremity of the latter abuts against the lower half of the tubular extremity of the former. Into the top of the boiler is screwed a "thermo-barometer," or tube containing mercury, the lower end of which hangs in the space to be occupied by the steam; the upper end being exposed against a graduated scale. This scale serves to indicate the right temperature and pressure, for the production of the finest and most uniform spray. To insure perfect safety, a spring safety valve, F, is placed behind the steam tube, and readily permits the escape of superfluous steam.

Figure 4, is a simpler form of the same instrument.

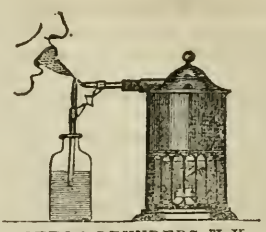

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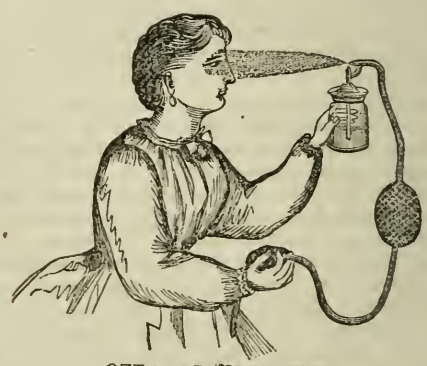
Fig. 4.

The advantages claimed for Siegle's apparatus are—First. That the spray produced is much finer and more uniform than that produced by any other instrument. Second. That the temperature of the spray can be raised to any elevation desired. Third. That the instrument when once set in motion requires no other attention than the most timid patient can give without trouble.

Dr. Andrew Clark, of London, has devised an apparatus (Fig. 5), which must be acknowledged to possess



OTTO & REYNDERS, N. Y.

Fig. 5.

great advantages in simplicity and extended application. It consists of an ounce bottle for holding the medicated fluid. Through the cork stopper of this, is passed the perpendicular limb of a Bergson's tube. To the horizontal limb is attached an india-rubber tube, terminating in two hollow balls placed at a short distance from each other. The one which is covered with network, is the air-reservoir, the other the air-pump. By alternately compressing and relaxing the end ball, the air-reservoir is distended as far as the network permits, when a continuous spray is produced.

This apparatus, as well as the others, can be used wherever it is necessary to apply a finely medicated spray to any surface. The patient in Fig. 5 is represented as applying the vapor to the eye.

Trichinosis.—This disease has not as yet appeared in France; but in order to be forearmed, a commission, consisting of Dr. Delpech, of Paris, and Professor Reynal, of the Veterinary School at Alfort—the first appointed by the Academy of Medicine, and the latter by the Minister of Agriculture—has been directed to proceed to Germany to study this disease in all its phases. On the way they will stop for a time in Belgium, where the disease has made its appearance at Huy.—*Boston Medical and Surgical Journal.*

Correspondence.

HYPODERMIC MEDICATION.

MEETING OF THE NORTHERN MEDICAL ASSOCIATION.

Philadelphia, April 15th, 1866.

SIR:—At the semi-monthly meeting of the Northern Association of this City, held last week, the following named gentlemen were elected delegates to the American Medical Association:—Drs. Slocum, Cohen, Richardson, Harlow, and Wittig.

Dr. Wittig presented in the name of an applicant for membership, a thesis entitled "*De Atrophia musculorum progressiva.*" This had been examined by several of the members, and is said to be a very valuable paper, and to be replete with authorities from the earliest records down to the present date. It will be translated and read before the Association at one of the meetings in May, when "Progressive Muscular Atrophy" will be the subject for discussion. I hope to be able to present you with an abstract of the paper for the columns of "THE RECORD."

The subject for discussion, at the meeting of the Northern Medical Association, held April 13th, was "Hypodermic Medication," and was opened by Dr. Robert Burns of Frankford, who stated that his intention was principally to open the subject for discussion, his own experience in the use of this method of therapeutics being as yet quite limited; although this experience, three or four representative cases of which he intended to narrate, was such as to corroborate the statements of many who, having give the subject mature consideration, had placed before the medical public a favorable record of their practical experience as to its utility. Dr. Burns's attention has been directed to this subject for several years, and he was particularly drawn to it from hearing a lecture on the subject by the late Dr. Mitchell, Professor of Materia Medica in the Jefferson Medical College of this City, upon which occasion Dr. Mitchell spoke much in favor of the subcutaneous injection of the salts of morphia in cases of Facial Neuralgia.

Since then articles have appeared from time to time in various of our periodicals laudatory of the practice. Within the past year the subject has been very handsomely brought before the public in a work by Antoine Rappauer, M D., Fellow of the Massachusetts Medical Society, and published in Boston in 1865. To this work he referred frequently during his remarks, considering it clearer and minuter in its details than any other of which he had knowledge. In May, 1860, Dr. Ruppauer published in the *Boston Medical and Surgical Journal* some notes entitled "*Researches upon the Treatment of Neuralgia by Subcutaneous Injection.*" In 1862 he read a paper before the Massachusetts Medical Society upon this subject, which was published in *Vol. X. No. II.* of their *Transactions.* "From that time to the present hypoder nic injection has had a more extensive trial among medical men than before." The practice has been used in other than purely neuralgic disease; by Mr. Hunter of London in *delirium tremens;* by Prof. Scanzoni in *puerperal peritonitis;* by M.M. Dupuy and Fournier in *tetanus;* by Mr. R. Ellis of Chelsea in *hysteria;* by Dr. J. H. Bennet of London in *uterine pains* and in *sea-sickness;* by Mr. J. Moore, of Bombay Medical Service, as well as by Dr. Classeaud of Smyrna, in *malarious fever;* by Dr. J. Mason Warren of Boston in *injuries of the nerves;* and by Dr. Von Graefe, who recently delivered a series of lectures on "*the employment of subcutaneous injections in Ophthalmic Surgery.*"

Dr. Ruppauer thus systematizes his work: 1st. The superiority of hypodermic injections as a therapeutic agent in the treatment of pain in many diseases. 2d. The diseases to which this treatment is applicable, and to which thus far it has been applied. 3d. Injections; their nature, extent, and limit. 4th. The instrument, operation, and point of injection. 5th. Cases treated in practice, and their results. 6th. Disadvantages arising from this treatment compared with its advantages.

Dr. Burns then went on to make some general remarks on the subject of pain, the dread sentinel of morbid action, whose approach is so dreaded by the patient, from which his physical nature shrinks, after alarming likewise friends and relatives by its frequence and violence. Happily the accumulated knowledge of the past and the accumulating discoveries rewarding scientific research, have provided us with agents great in power to subdue pain and relieve suffering. In the first rank of Anodynes we have Opium, with its numerous compounds; Chloroform, Sulphuric Ether, Nitrous Oxide Gas, Belladonna, Aconite, and many similar substances, through the instrumentality of which many a poor sufferer has been relieved of pain; and, if not cured, his tedious hours and sleepless nights have passed away in comfort. In order to produce this effect, various modes of administration have been practised; *by the alimentary canal, the respiratory organs, the dermoid surface,* and the *subcutaneous cellular membrane,* which latter method has excited a great deal of interest among medical men, for which there has been substantial reason.

In the first place, by injection into the cellular tissue, a medicinal agent comes into more intimate contact with the periphery of the nerves, and is much more quickly taken up by the absorbents into the circulation; hence in severe pain we have a means of prompt relief which we cannot obtain as effectually by the stomach, as in the latter case the medicine becomes mingled with the ingesta and stomachic secretions, by which, doubtless, it is often neutralized and slowly absorbed, to the disappointment of both physician and patient.

In many diseases also it is impossible to administer anything per os, as in convulsions, mania, delirium tremens, tetanus, hydrophobia, hysteria, tonsillitis; besides, many diseases affecting the nervous system are exceedingly obstinate, resisting the best directed efforts of the physician, and the usual remedies become inoperative in their effects, as in sciatica, ovaritis, uterine neuralgia, facial neuralgia, colica pictonum, intussusception, rachitis, and injuries attended with violent pain. In them, as well as in many others, much and decided relief can be obtained by the use of hypodermic injections; and not only in regard to the relief of pain alone is the method applicable, but bids fair to be resorted to to produce other effects on the organism in the treatment of morbid action. And, on the other hand, the method is likely to be attended with much danger in the hands of the rash or ignorant; for whom, however, it was never intended, and it is to be hoped that its use will never be extended beyond legitimate practice.

Dr. Burns then narrated the three following cases, selected from his practical experience, for the purpose of illustrating his grounds for considering favorably the utility of the method of medication:—

CASE I.—NEURALGIA; PRINCIPALLY OF HEAD AND STOMACH.—Mrs. Mary L——, a lady of wealth and refinement, whose physician Dr. Burns has been for a period of upwards of twenty years, during which time, and anteriorly, she has been a great sufferer from frequent attacks of *neuralgia,* confined generally to the head and stomach; but within a few years past the cardiac region seemed to become its favorite location. This condition often continued a length of time with excessive severity.

The whole catalogue of anodynes has at sundry times been used with but little benefit; cupping, blistering, and, in some congestive attacks, even venesection has been had recourse to; the tonic treatment has likewise been vigorously pursued in the administration of quinine, cinchonine, iron, bismuth, oxide and sulphate of zinc, &c. Antispasmodics have been given; valerian, with belladonna, and ammoniated valerian. Alteratives more especially directed to the condition of the digestive organs, as salines, bromines, mercurials, and even arsenic, which last could never be tolerated; all these, and many more which might be mentioned, were used time and again.

The last attack that this lady has experienced, began on the 16th of April, 1865, and was of more than usual severity. On the 5th, she was seized with fainting, severe pain in the hepatic region, with a congestive condition, and general impairment of the digestive functions. This state was relieved by venesection; blue mass, a blister over the liver, followed by quinine; and she was doing very well, although sleepless, and troubled with pains in various parts. About 10 o'clock on the night of the 15th, severe pain about the præcordium came on, which produced much suffering.

April 16.—No better. Ordered frictions with hot spirits and flannel to the extremities; bottles of hot water to the feet, sinapism to the spine; draught of brandy and water; and the following prescription: ℞. Acetatis morphiæ, grs. iv.; spts. ammon. aromat., f ʒ ij.; tr. aconit., gtt. xxxij.; chloroformi, f ʒ i.; aq. camphoræ, f ʒ ij.; Syrupi limonis f ʒ iss. M. ft. mistura. Of this, a teaspoonful was directed to be taken every half hour until three times; then every hour until easier. *At* 4.30 P.M., *Sunday*, she was very little better. The bowels had been opened, and five doses of the medicine prescribed had been taken. Having been so often disappointed with the usual remedies employed in this case, it was resolved to employ the hypodermic plan; therefore, at twenty minutes before five, the hypodermic syringe not being at hand, a puncture was made in the arm, near the insertion of the deltoid muscles, with a small bistoury; and with an Anel syringe for injecting the puncta lachrymalia, one-quarter grain of the acetate of morphia, dissolved in a drachm of water, was neatly injected, and the puncture was then closed by placing over it a small strip of adhesive plaster. The operation gave no pain, and was soon followed by a slight blush over the surrounding tissue for a considerable distance. *At* 6 *o'clock, same evening*, the patient was quiet, though she said she was no better, and was very anxious for immediate relief. Advised quietude and patience. *At* 10 *o'clock, same evening*, she was much easier, though there was still some pain. Still, on the whole, the patient felt much relieved. *April* 17.—9.30 A.M.—Had passed a comfortable night, with some sleep. Tongue much coated, but moist; some sense of coldness and indication of chill, though not decided. Gave directions accordingly. 9.30 P.M.—Has had a chill, but not much fever, and but little return of pain. *At her urgent request*, one-third grain of the acetate of morphia was introduced into the other arm, with but little loss. Ordered quin. sulph., in doses of two grains, to be taken before morning. *April* 18.—Has rested quietly through the night, and has taken the quinine. There is, at present, distress of stomach—inclination to vomit; the tongue is still coated. Ordered blue mass, grs. xv., with magnesia ʒ i.; and the effervescing neutral mixture of citrate of potash, made with fresh lemon-juice, to be given frequently in small doses. *April* 19.—Somewhat better; less sickness at stomach; bowels open; continues weak; tongue cleaning on edges. Ordered quin. sulph., grs. xxxij.; morph. sulph., grs. ij., elix. cinchonæ ʒ iv. made into a mixture. Dose, two teaspoonfuls every two hours until five or six doses are taken; afterwards, three or four times a day. *April* 20.—Doing favorably. *April* 21.—Appetite craving. *April* 23.—Better. Considerable debility. Still complains of soreness at the epigastric and hypochrondriac regions; bowels open; appetite improving; tongue cleaning. Has taken during the week, sixty-four grains of quinine, with the elixir of cinchona. Omit the quinine. Use the neutral effervescing draught; take animal food in small quantities. A little sweetbread with rice, which she desires, is permitted. *April* 25.—Introduced the third time one-third grain of acetate of morphia, upon the inner side of the arm, with very marked relief. Had a good night's rest, with much diminution of pain. The tongue is still coated. Ordered the following: ℞. Mass. hydrarg., grs. xxiv.; pulv. opii, grs. vj.; ext. taraxaci, q. s.; ft. pil, No. xxiv. Sig. One to be taken three times a day, with infus. pruni. virg. cort. The diet to be carefully guarded. Around one of the punctures there was a diffused inflammation, to which lead lotion was ordered. *April* 28.—For the fourth time, one-third grain acetate of morphia was introduced, this time on the mesial line of the left breast, where the pain so obstinately centred. *April* 29.—Has had a very comfortable night, and is to-day, upon the whole, much better. *May* 1.—Doing well and sitting up. Appetite is improving. Medicines to be continued. *May* 3.—Improving; sitting up; tongue cleaning; slight mercurialization; said she had a good deal of gastrodynia yesterday and last night. Discontinue the blue mass pills; continue the infusion of wild-cherry, and ordered ten-grain doses of the subnitrate of bismuth twice a day.

The inflamed puncture on the inner side of the arm continues troublesome and indurated. Directed the application of the lead lotion with opium. *May* 5.—Introduced one-third grain morph. acet. for the fifth time, selecting a spot between the scapula and vertebra. From this time forth, the patient continued steadily to convalesce, and regained her usual health, with less cardial distress than she experienced for years.

In this case the digestive organs were certainly at fault, with congestive intermittent, which materially aggravated the neuralgic diathesis, and from which she cannot be expected to be entirely exempt. By the use of hypodermic injections, however, she has derived much benefit, and places much confidence in them; and it is to be hoped that if there is a return of her much dreaded pain, there will be in them a speedy means of relief.

Case II.—Mania.—Jefferson C——, a young man to whom Dr. Burns was called on the night of May 26th, 1865. He was suddenly seized with mania, and became so unmanageable that it required four or five persons to restrain him from injuring himself or others. The administration of medicine by the mouth was impossible, and it even became necessary to bind him firmly to the bed. His loquacious noise was so great that it was imperative to produce quietude by some means. For this purpose one-third of a grain of acetate of morphia was injected into his arm on the first of June, which had the effect in a short time, and the night was passed in tolerable quietude. On the next morning he was more composed; but about 9 o'clock A.M. again became furious, when the operation was performed a second time. This was followed by similar results; and he continued under its tranquillizing effects until death relieved his earthly suffering. This was a very affecting case, and seemed to resemble low fever in a congestive form, affecting the meninges of the brain and medulla oblongata. The whole disease lasted but seven days, during three of which only Dr. B. was in attendance. In this

instance the hypodermic injection afforded much benefit by inducing quietude, relief of suffering to the patient, and satisfaction to his relatives and friends.

Case III.—Sciatica.—Charles Z——n, a blacksmith by occupation, and recently a volunteer in the Union army during the late rebellion. Dr. B. commenced his attendance on the 7th of March, 1866, he having then labored under his disease for the previous five weeks under the care of another physician. He is a German by birth, 35 years of age, of light complexion, and nervous temperament. On examination, he complained of an excruciating pain about the pelvis, groin, and entire right limb; that such was its severity, he had had no rest or sleep day or night for the previous five or six weeks. His entire limb manifested no unusual appearance, save apparent enlargement, with strong pulsation of the femoral artery, as it emerged under the crural arch, which at the moment favored the idea of an aneurismal condition. His pulse was good, skin natural, but tongue coated. He had been treated by blisters on the anterior of the thigh, and anodynes internally Dr. B. considered the case one of hepathic disorder, and neuralgia of the sciatic and lumbar nerves, communicating to the crural and cutaneous branches. Acting upon these views, he treated him with mercurial laxatives, Dover's powder with morphia at night, and quinine with iron. This course was pursued with constitutional benefit, and his condition was more comfortable. Still, the pain continued, and the anodyne at night was still urgently demanded. In order to break up this habit, and the more effectually to relieve him, Dr. B. resolved to employ hypodermic measures, and with the following result:

March 21.—Injected over the sciatic nerve. *March* 22.—Injected upon the anterior part of the thigh. These operations were not fully satisfactory from a defect in the syringe, yet marked relief was obtained; for, on *March* 23, he had three hours' sleep, the first refreshing rest he had for six weeks. *March* 24.—Injected by two punctures, one-third of a grain of acetate of morphia. *March* 25.—Quite easy, though the leg was weak and somewhat stiff. He was able to walk without support; had been down-stairs, and could sit upon the chair with comfort. *March* 30, and *April* 1.—He steadily improves, and has had no return of pain.

Dr. Burns also alluded to another case under treatment at the present time. A Mrs. McC——, who has been very sick for the past month with low fever and the most severe neuralgia of the pelvic viscera, especially the left ovarium and uterus, although both rectum and bladder were often affected, causing severe expulsive efforts. Under the use of general remedies she is improving, but great wakefulness and pain in the left groin and limb continue, with much violence at intervals.

March 31.—Injected ½ gr. acetate of morphia into the left thigh, a little below the inguinal region and inner side of the Sartorius muscle. *April* 1.—Has rested better than she had done for four weeks, and feels free from pain. *April* 2.—Pain returned last night, with pain also in the back, supposed to be premonitory of the menstrual period. Introduced ⅛ gr. of acetate of morphia into the inguinal region, where the pain is greatest. *April* 3.—Has slept all night, but this morning began to suffer exceedingly with pain in the back. Menstruation has taken place. A vaginal examination reveals the left ovarium very tender to the touch, and somewhat enlarged. The uterus is easy. Injected into the arm ⅛ gr. acetate of morphia. *April* 4.—Rested well; menstrual flow doing well. There is considerable debility. Ordered a table-spoonful of brandy every two hours until more invigorated, with 2 gr. doses of quinine every three hours; and in order further to control the pain of the ovary, applied over it a blister. *April* 5.—The blister has acted well, and pain is gone. Her face is covered with an exanthematous eruption of a rose color, which appeared before with several particles of *urticaria* on different parts of the extremities. *April* 6—She is this morning sitting up, having her hair cut off. She looks much better, and has no pain. *April* 7.—Last evening *urticaria* came out upon the surface of the body with most extreme irritation and excitement, causing her a night of great restlessness, with spasmodic action of the stomach and diaphragm. The eruption was red upon the face, but on the other parts of the surface pale. The itching was intolerable, and nervous scratching, accompanied with almost spasmodic action.

Ordered the following:—℞ Magnes. ust. ʒ ss.; spts. eth. nit. and tr. opii camph. *āā* ʒ ss.; ext. valerian, fluid ʒ j.; mucil. gum. acac. ʒ j.; sacch. alb. q. s. M. sig. A table-spoonful to be taken every three hours, and at bedtime one of the following powders:—℞ Sodæ bicarb. ʒ ss.; pulv. ipecac. comp. ʒ ss.; lupulin., grs. xij. M. Divide in pulv. vj. If one should not produce rest, to take another in two hours, and to have the surface sponged frequently with bran water.

April 8.—Much better. The magnesia mixture has operated very freely; had rest, but not much sleep; some perspiration; the urticaria is but little observable. Ordered the powders to be continued this evening.

The tormenting neuralgia appears to have passed away since the last hypodermic injection and blister. Query.—Had the morphia any agency in producing the urticaria? In this case Dr. B. presumed not, as it came out previously to the use of that medicine; and her tongue being coated, the condition of the digestive organs, with morbid secretions, seemed to be the cause.

April 9.—Much better. The eruption has disappeared. *April* 10, 11, and 12.—Continues better; appetite improving; tongue slowly cleaning; sometimes a little pain about the ovary, which is yet tender to the touch; the bowels are free. At the present time convalescence seems established.

In this case hypodermic medication certainly contributed materially to her recovery.

Thus Dr. Bourns felt justified, from the result of his own experience in this method of relieving pain, in being sanguine as to its advantages in a multitude of others; but he would not entertain the *one idea*, and have the syringe brought forth on every occasion; but when other means are used without relief, he deems it to be of valuable service. The use of it should be well guarded, and the medical remedies well studied and carefully selected.

The length of the remarks already made precluded attention to other uses of the method than already alluded to; and for the use of those who desired to pursue the subject, he would recommend the book of Dr. Rappauer.

In the discussion which followed, it seemed to be generally allowed that the advantages of hypodermic injection, as far as recognised by the members who had employed it, were principally palliative and temporary; the anodyne effects, when salts of morphia are employed, being more promptly exhibited than when administered by the mouth: but when the pain was so intense as to demand relief at all hazards, the production of relief in this way did not appear to compensate for the disadvantages produced by the puncture.

In army and hospital practice much benefit had accrued from subcutaneous injections of anodyne remedies in painful stumps, in procuring sleep after operations, and relief in the terrible sufferings at the terminal

extremities of wounded nerves; though in the majority of these cases the relief was temporary, requiring gradual increase in the strength of the injection to reproduce the effect.

None of the members taking part in the discussion had had personal experience in the subcutaneous injection of quinine in intermittent fever or articular rheumatism.

The benefit of relieving pain, even for a time, calling off the attention of the nervous centres from this symptom, and thus producing a general tranquillization favorable to the action of remedies administered as curative to the particular disease producing the suffering, was recognised; but even for this purpose it was thought the usual endermic method of sprinkling morphia over a previously blistered surface would generally fulfil all the indications that seemed to call for the endermic injection.

The space of this communication prevents the detailing of the arguments *pro* and *con.*; but the *résumé* given above is the impression left upon the mind of the writer by the remarks made, without reference to his own predilections, which are certainly favorable to the extended use of this hypodermic medication.

The relief of pain, however produced, is a great element of cure, and the prompter the relief, the sooner of course the beneficial effects of cessation of suffering. This can be no better exemplified than by alluding to cases of painful abscesses in young children, which must come under the observation of every practitioner. Whether a sequel of scarlatina, measles, or other affection, a felon, or otherwise produced, a physician will be called to prescribe for a painful swelling which has prevented the child from sleeping for several days perhaps. An abscess is recognised, the bistoury plunged in it; and if large, even before it is evacuated, the child will be dozing in the arms of its nurse.

Of course such cases are not parallel to these in which subcutaneous injection of anodynes is desirable; but the *pain* of the abscess is what prevents the child from sleeping, though the discharge of the pus is necessary to the cure; and so on in many affections, intense suffering prevents that *rest*, so invaluable as a therapeutic agent. As an adjuvant in the intelligent treatment of many painful affections, and other affections where remedies cannot be administered according to first principles, the hypodermic syringe should be given a prominent position in the armamentarium of the physician.

Yours truly,

C. J.

THE ALUMNI ASSOCIATION.

To the Editor of the Medical Record.

Sir:—You will allow me to notice an important omission in your account of the Eighth Annual Meeting of the Alumni Association of the College of Physicians and Surgeons. No mention is made of the elegant entertainment provided for the Alumni at the Ashland House (after the adjournment of the business meeting), by the exertions of Professor St. John of the Faculty, and of Dr. Jared Linsley of the Board of Trustees. I am unwilling that the labors of these gentlemen should be passed by without due acknowledgment, and have therefore great pleasure in making this announcement. The bountiful supply of Croton wine furnished by the liberality of Dr. R. J. Underhill (class of 1825) called forth a well merited compliment to the donor. The whole affair was a complete success, and demonstrated the advantage of holding our annual meetings under the "old roof tree," rather than in private houses.

One word more. The obituary notices of deceased alumni was a most interesting feature of the occasion, prepared with great labor by Dr. Ellsworth Eliot, Secretary. They should have received a special acknowledgment.

J. G. A.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK AND "ICONOCLASTIC TILTS."

To the Editor of the Medical Record.

Sir:—In the Record for May 1, a correspondent writes that he "almost failed to recognise *his* time-honored friend, the New York County Medical Society, under the name of the Medical Society of the County of New York." He asks, if "you can produce any authority for the violent change in nomenclature," and says, "the Society has certainly gained all its prestige under the terse, compact name of the New York County Medical, and not under the awkward, unmusical one recently sought to be given it." He then implores you "to desist from your iconoclastic tilts at authority, both written and traditional, and return with all possible speed to the good old usage," making thereby, in his opinion, a masterly retreat.

Having printed the proceedings of the Society as you received them, you are not responsible for the alleged outrage against authority and good taste, which has provoked an onslaught from your correspondent, calculated to alarm any one not familiar with dictionaries, even if the truth were on his side. In the present instance the reputation of your journal for accuracy will not be impaired.

In the first place *there is authority* for the name "The Medical Society of the County of New York." It is so written in the act of incorporation, and generally in its archives, and I am informed by one of its prominent members that the name of our sister society across the East River, is "The Medical Society of the County of Kings," which, in the opinion of your correspondent, is also a misnomer. Other authority, if called for, can be furnished.

Is the legal name of the Society in accordance with "good usage?" Is it "awkward" and "unmusical?" This point cannot be as authoritatively settled as the preceding, but it may be urged in its favor that it was given more than sixty years ago by its founders, among whom were Nicholas Romayne, Valentine Seaman, Samuel L. Mitchill, and David Hosack, and I can find nothing in their records to justify the belief that they or their successors, among whom may be named Mott and Francis, were dissatisfied with it. Under them and their name the Society did gain *some* prestige; and as they held high rank, not only as men of science, but of general culture, it may be excusable to trust to their judgment in regard to the name of an institution which they founded and cherished, rather than to the assertion of an anonymous dogmatist.

A few words in regard to the "iconoclastic tilt.' Should any one succeed in establishing the applicability of this high-sounding phrase to the question raised, perhaps the process which results in conviction will be sent to you for publication.

Is there any reason for a retreat? Were your correspondent your military superior, I suppose that his advice would be tantamount to an imperative order; but as you do not sustain that relation to him, I hope you will continue to abide by the advice of Davy Crockett, "Be sure you're right, then go ahead," to which also you may safely commend all your corres-

pondents. Then they will not be misled by terms loosely and inaccurately applied.

ELLSWORTH ELIOT, M.D.,
Record. Sec. of "The Med. Society of the County of New York."
NEW YORK, May 3, 1866.

New Publications.

BOOKS AND PAMPHLETS RECEIVED.

REFLEX PARALYSIS; its Pathological Anatomy and Relation to the Sympathetic System. By M. GONZALEZ ECCHEVERRIA, M.D. (University of Paris), etc. N. Y., Baillière Bros., 1866.

CLINICAL NOTES ON UTERINE SURGERY, with special reference to the Management of the Sterile Condition. By J. MARION SIMS, A.B., M.D., late Surgeon to the Woman's Hospital, N. Y., etc. N. Y., William Wood & Co., 61 Walker St., 1866.

ASIATIC CHOLERA; its Origin and Spread in Asia, Africa, and Europe. By R. NELSON, M.D., Health Commissioner, President of the Medical Board for the District of Montreal, etc. N. Y., W. A. Townsend, 1866.

A MANUAL OF BLOW-PIPE ANALYSIS, etc. By WILLIAM ELDERHORST, M.D., Professor of Chemistry in the Rensselaer Polytechnic Institute. (Third Edition.) Philadelphia, T. Ellwood Zell, 1866.

AN INTRODUCTION TO THE STUDY OF THE OPTICAL DEFECTS OF THE EYE, etc. By A. M. ROSEBURGH, M.D. Toronto, 1866.

NATURE, PREVENTION, AND CURE OF CHOLERA. By C. C. SHIEFERDECKER, M.D. American News Co., Nassau Street. 1866.

CHEMISTRY VICTORIOUS OVER CHOLERA. By J. P. GILBERT, M.D. New York: GILBERT & Co. 1866.

FISSURE OF THE HARD AND SOFT PALATE. By J. MASON WARREN, M.D. Boston.

Medical News.

THE LATE PROF. JOSEPH M. SMITH—IN MEMORIAM.—At a quarterly meeting of the Trustees of the College of Physicians and Surgeons in the City of New York, held on the 8th ult., the following resolutions, relative to the decease of Prof. Joseph M. Smith, were unanimously adopted:

Whereas, In the dispensation of an all-wise Providence, Joseph M. Smith, M.D., late a member of the Faculty of this College, was removed by death on the 22d April ult.;

Therefore Resolved, That this Board, while they deeply deplore the loss of such a Professor of such distinguished excellence and ability, cannot forbear expressing their gratitude to God, that in his mercy, the College was permitted to enjoy for so many years his valuable and uninterrupted services.

Resolved, That the uniform ability and fidelity with which for nearly forty years Doctor Smith performed the functions of Professor, first of Theory and Practice of Medicine and Clinical Medicine, and subsequently of Materia Medica and Clinical Medicine, have contributed in an eminent degree to the steadily advancing reputation and prosperity of the College.

Resolved, That not only the professional eminence attained and so long enjoyed by Dr. Smith, commanded our respect and confidence, as it did that of the medical profession and community at large, but his amiable and dignified manners and christian excellence of character won our affection and personal attachment.

Resolved, That a copy of these resolutions be entered on the minutes and communicated by the Registrar to the family of the deceased, with the assurance of our heartfelt sympathy.

EDWARD DELAFIELD, M.D., President.
GURDON BUCK, M.D., Registrar.

CHOLERA AND QUARANTINE.—At a meeting of distinguished medical men from all sections of the Union (numbering between sixty and seventy), who met at Baltimore on the 4th ult., at the rooms of the Medico-Chirurgical Society, at 8 P.M., the following proceedings took place:

Dr. Charles A. Lee, of New York, was called to the chair, and T. E. Bond, of Maryland, appointed Secretary. On motion of Dr. T. Donaldson, of Maryland, the following memorial to Congress was adopted:

To the Honorable the Senate and House of Representatives of the United States:

The undersigned, being deeply impressed with the necessity of prompt and efficient measures for protecting the community against the approach of Asiatic cholera, and believing that the scientific investigations since 1832 have demonstrated the portability and communicability of the disease, petition your Honorable Body to adopt a uniform and efficient system of quarantine at every port, on some such system as recommended by Dr. Marsden, of Quebec, whose plan we beg leave respectfully to submit.

On motion, a committee, consisting of Dr. Charles A. Lee, of New York; Dr. Edw. Warner, of Baltimore; Dr. Sayre, of New York; Dr. J. L. Atlee, of Penn.; and Dr. N. Pinkney, U.S.N., were appointed to present this memorial to Congress.

THE NATIONAL STEAM NAVIGATION COMPANY have decided to stop German emigration by their vessels, and the British government has ordered a strict examination of all German emigrants before their admission to England.

GUADALOUPE.—The bark Helena Morton, from Guadaloupe, an infected port, with a clean bill of health and nineteen days out, has had permission, after a brief quarantine, to come to port.

"SUGAR PREVENTING GENERATION.—Mr. Tanner, Professor of Rural Economy in Queen's College, England, is inclined to believe that by the use of sugar as food, any animal may be rendered incompetent to propagate its species. He was led to this opinion by observing that some stock which had been fattened on molasses, mixed with dry food, were rendered barren, and that heifers fed in the same way escaped the periodical excitement of the breeding season. It was doubtful whether the power of reproduction was ever regained. The effect is attributed to a fatty augmentation of the ovaries, from which recovery might be difficult."—*Pacific Medical Journal*

Ourselves as Others see Us.—Under the title "State of the Profession of Medicine in America," a writer from New York, in the "*Wiener Medizinische Presse*," gives quite a graphic picture of ourselves. We condense and quote:

"The practice of medicine is free in the widest sense of the word. The State scarcely troubles itself about the physician. No law exists which requires a diploma as a prerequisite to practice. Any one in America may give himself the title of 'Doctor.' * * * * Under such circumstances we need not be surprised, if an American celebrates its triumphs, which are often mournful ones, since there physicians spring from the ground like mushrooms. A nurse, without further ado, opens an office, and in the same way a barber. But many others whose pursuits have had no tendency to medical knowledge, who have been merchants, writers, clergymen, etc., take up the doctor's handicraft. Some learn the profession as the cobbler does his; that is, they stay for a while with a physician of long practice. Still, the greater number of those who enter the profession attend the medical schools, of which there are a great number in America. Not a few foreigners also figure here as physicians. This number is composed partly of regular graduates, and partly of those who have failed in their examination, or who have never come up for it. * * * * Wherever a great number of physicians find themselves together, there a medical college is formed, which is recognised by the State.

"The course of instruction in these schools is generally very defective. No preparatory studies are pursued. (!) The course of instruction lasts in these schools generally sixteen weeks. * * * * We may be certainly surprised if in spite of this, in America, not unfrequently physicians are found that are not only excellent practitioners, but who are fully conversant with the literature of the profession, even the foreign. With us Germans, many a one folds his hands, after the examination, and draws throughout his life from what he has learned at the schools. This is less apt to occur with the Yankee; a part of whose character is to pursue with ardor an avocation which he has once undertaken, and always to bear any kind of trouble and labor (even if he become rich), which his profession may bring to him. A good knowledge of Materia Medica and Therapeutics (arzneimittellehre) is most prominent among American physicians; but unfortunately, there is a great want of knowledge of pathological anatomy. Months pass before even a good and busy practitioner makes a post-mortem, and as to the others of the quack order, they never saw one; but it is all the same as if they did."

Changes and Appointments in the Metropolitan Health Board.—Dr. Samuel R. Percy has been appointed a special inspector, with title of clerk; his duties are to have reference to the milk offered for sale. Dr. George W. Bayles and Dr. J. Lawrence Hicks have been appointed sanitary inspectors; the latter for the town of Flushing, L. I.

Danger of Hypodermic Injections.—The London *Medical Times and Gazette* describes an accident which lately happened to Prof. Nassbaum, of Munich. Suffering from neuralgia he had injected morphia under his own skin more than 2,000 times, sometimes to the extent of five grains in twenty-five hours. On one occasion lately he injected two grains acetate of morphia dissolved in fifteen minims of water into a subcutaneous vein, and for two hours his life was in imminent peril. We do not see clearly why the result should be serious, unless a small portion of air was injected. The Professor must have gone to work very carelessly, either to do this, or to penetrate a vein. Nothing is more easy than to avoid both accidents. After all, we may excuse the one mistake in 2000 operations.—*Pacific Medical and Surgical Journal and Press.*

"Diabetes Cured by a Seton.—In the French Academy of Science a case was narrated of a man, aged thirty-eight, much wasted with diabetes, who had been treated unsuccessfully for eight months with the usual remedies, and who had a large seton put in his neck at the end of that time. The sugar in the urine diminished as the suppuration continued, and in six months entirely disappeared. The man returned to his work, and for a year had remained perfectly well. With what indication the seton was used, or how it acted, is not explained. Besides, it is a good rule not to accept the truth of such statements without good evidence."—*Pacific Medical Journal.*

Vaccination in Cuba.—According to official returns, 8,696 vaccinations were made in this island during the last six months of 1865. Of these there were in Havana only 1,210, of which 741 were whites, and 467 colored. The total number of whites vaccinated on the island, was 4,697 during those six months.

The Climate of Africa.—Doctor Livingstone recently stated in a lecture, that no less than forty missionaries succumbed to the deadly effects of the climate of Africa before a single conversion took place.

A New Material for Sculptors.—M. Henri St. Claire Deville lately communicated to the Academy of Sciences of Paris, the fact that magnesia obtained by calcination from chloride of magnesium will, when exposed to the action of water for some months, acquire considerable consistency, and become hard enough to cut like marble. A lamina of this magnesia of moderate thickness is translucid like alabaster. With this substance, M. Deville has been enabled to take casts as if with plaster of Paris, only the former sets under water. A mixture of chalk and magnesia in powder, made up into a paste with water, is good for moulding, and will become exceedingly hard under water.

Report of an English Burial Board.—The Liverpool (Eng.) Burial Board has adopted a report in favor of abolishing interments on Sundays, on the grounds that the moral effect of such funerals is bad, that they were conducted with less decorum than on other days, and were the direct cause of contagion and death.

Appointments in the College of Physicians and Surgeons, N. Y.—Dr. Freeman J. Bumstead has been appointed Professor of Materia Medica and Clinical Medicine to fill the vacancy occasioned by the death of Prof. Joseph M. Smith. Dr. Henry B. Sands has been promoted Professor adjunct of Anatomy, and Dr. Erskine Mason elected Demonstrator of Anatomy.

Surgeon E. S. Bogart has been detached from Naval Hospital at New York, and is waiting orders.

Original Communications.

INTUSSUSCEPTION OF THE SMALL INTESTINES IN INFANCY.

By J. LEWIS SMITH, M. D.

CURATOR OF THE NURSERY AND CHILD'S HOSPITAL, PHYSICIAN TO THE PROTESTANT EPISCOPAL ORPHAN ASYLUM, PHYSICIAN TO THE CHARITY HOSPITAL.

Simple intussusception—or, as Rilliet and Barthez express it, intussusception without symptoms—is common in the infant, and its seat is always the small intestines. It is reduced by slight traction, and it is attended by no anatomical alteration, except the displacement. The invaginated mass is found in the upper part of the ileum, or in the jejunum, and usually more than one is present in the same patient. I have counted ten at variable distances along the jejunum and the contiguous part of the ileum. Simple intussusception is supposed by many to occur at the moment of death. Not being attended by symptoms, it is a matter of little pathological and no therapeutic interest.

Intussusception with symptoms, in infancy—or as writers variously term it, making no account of the simple form—intussusception, invagination, or volvulus, usually occurs in the large intestines. Some of the most eminent authorities in infantile pathology say that it always does. The purpose of this paper is to show that intussusception, irreducible and even fatal, may occur in the small intestines during infancy, though less frequently than in childhood or adult life. This is indeed admitted by Bouchut, who says (Diseases of Children): "M. Rilliet states in a recent treatise, that in infancy the intestinal invagination is always accomplished at the expense of the large intestine, and that there is never invagination of the small intestine. I have observed the small intestine invaginated in the adjacent inferior part. Taylor has reported a case of this kind in a child twenty months old, who died after an attack of acute peritonitis. M. Marage has seen another case in a child thirteen months old, who recovered after having voided the invaginated portion, furnished with two of these diverticula, so frequent in the small intestine of the fœtus."

Objection may be raised to the cases cited by Bouchut. From all that appears, the one reported by M. Marage may have been, and probably was, an example of the common form of intussusception, that of the ileum into the colon, the internal or iliac portion being expelled, while the external portion of the colon formed new attachments and remained. Mr. Taylor's case was probably included in the statistics of a paper published by myself in the "American Journal of Medical Science," in 1862, as one of the cases in the table contained in that paper was an infant of twenty months, observed and treated by a Mr. Taylor. In this patient, the invagination was really of the ileum into the colon, although a small portion of the ileum next to the valve had not been inverted, and it therefore constituted a part of the exterior of the mass.

The following cases, I believe, are genuine examples of irreducible intussusception of the small intestines in infancy. They were observed and in part treated by myself, the first in the family of a physician of this city, the second in the New York Infant Asylum, and the third in the children's department of the Charity Hospital. Probably at first the intussusception in these cases was of the simple variety, but continuing, and the displacement increasing, the return of the intestine soon became impossible.

Case I.—This patient's health had been uniformly good, and nothing unusual was observed in its condition till the age of four and a half months, when it became restless, as if in almost constant pain, with occasional exacerbations. Castor oil was prescribed, which operated freely, and then the following mixture:

℞. Magnes. calcinat. ʒi.; Tinct. opii. camphor. ʒii; tinct. asafœt. ʒ ss.; aq. anisi ℥ i. M. *Dose*, ten to twenty drops, repeated according to the pain.

These remedies failed to give relief, as did also chloroform, given in doses of two drops. After two or three days, another set of symptoms arose, those characteristic of pneumonia, namely, hurried respiration, accelerated pulse, short suppressed cough, and expiratory moan. He was treated with the oil-silk jacket, moderate counter-irritation, and an expectorant mixture containing carbonate of ammonia; and in a few days the pulmonary disease was evidently subsiding, but the pain in the abdomen, with occasional exacerbations, continued. His countenance was pallid, and bore an expression of suffering. There was no distension or tenderness of abdomen, and no abdominal tumor. He took little nutriment, and seldom vomited. In the last part of his sickness the dejections were scanty, and the last three days they consisted mainly of mucus and a little blood. The pain seemed to be growing less, when he was seized with convulsions, and died the same day, precisely two weeks from the commencement of his sickness.

Sec. Cadav.—Head not examined; body slightly emaciated; mucous membrane of trachea and bronchial tubes vascular; posterior portion of the lower lobe of each lung solid, of a greater specific gravity than water, and not susceptible of inflation; it was in the second stage of pneumonia.

Stomach, duodenum, jejunum, healthy. In the upper part of the ileum was an intussusception two-thirds of an inch long, presenting no trace of inflammation, either within or around it, and its vascularity not notably increased. Above the intussusception, the intestine was empty; below it, and chiefly in the small intestine, was a dark substance, evidently blood, and giving in a few hours the offensive odor of decaying animal matter. There was a passage through the intussusception, at least two or three lines in diameter, as shown by a probe.

The intussusception sustained the weight of sixteen inches of the intestine, and it would apparently have sustained considerably more. The remaining organs were healthy.

Case II.—F. S., a female infant, four months old, was treated at the New York Infant Asylum in June and July, 1865, for entero-colitis, the usual infantile epidemic of the summer season. The following records show the state of the bowels immediately before her death.

June 24th—Has five or six stools daily; *June 30th*—Two stools in twenty-four hours; *July 1st*—Had two stools since the last record; no vomiting; *July 3d*—Four dejections in twenty-four hours; *July 4th*—The diarrhœa continues as before; dejections about four daily. On the 6th of July she died.

Her pulse during the time these records were taken, generally numbered about 128 per minute. She was much emaciated at the time of her death. The medicines employed were mainly alkalies and astringents.

Sec. Cadav.—Parietal bones united, serous effusion lying over the convolutions of the brain, under the arachnoid; occipital bone depressed; commencing at a point about two feet below the stomach were four intussusceptions, two or three inches from each other. The invaginated masses were from one to one and a

half inches in length, and three of them were found to be very vascular in their interior. Above, between, and immediately below the intussusceptions, the intestine was healthy. One of the invaginations was tested by weight, and was found to sustain one and a half feet of intestine, and would have sustained more. Water poured above these intussusceptions, escaped through them very slowly. No fibrinous exudation; descending colon vascular and thickened, and solitary glands enlarged.

Case III.—M. M., female, aged four and a half months, was admitted into Charity Hospital, in good condition, on the 6th of April, 1866. It was nursed by its mother till the time of its admission, after which it was bottle-fed. Nothing unusual was observed in its condition until April 12th, when it began to vomit frequently. The bowels were open, but the dejections were small, and not frequent. On the 13th, he vomiting continued, and the records state that there was no diarrhœa. She was becoming emaciated; her countenance was pallid, and it indicated grave disease. On the 14th, the stools were scanty, and the vomiting continued at short intervals. She was sinking rapidly. On the 15th there was much prostration, and the vomiting had nearly ceased. The substance vomited had a dark color. The stools, which were scanty and infrequent, seemed to be chiefly fœcal, containing no blood, and little if any mucus. On the 15th convulsions occurred, attended by an upward direction of the eyes, and the following night death ensued.

Autopsy.—In the haste of the examination, the cranium, unfortunately, was not opened. The lungs seemed healthy, with the exception of slight sub-pleural emphysema; the stomach and upper part of small intestines were healthy, with the exception of a few vascular patches in the latter. In the ileum, perhaps two feet above the ileo-cæcal valve, was an intussusception, two and a half inches in length, firm on pressure, of a reddish livid color, about one inch in diameter, whereas the intestine above and below measured about half an inch. There was no plastic exudation, or other evidence of inflammation. Below this intussusception the intestine, examined through its coats, presented also a livid appearance, as if containing blood. It contained fœcal matter and mucus apparently tinged with blood; but no blood discs were found in the examination by the microscope. The invaginated mass was a little larger above than below, and it had a crescentic shape, the concave side corresponding with the attachment of the mesentery.

Thirteen inches below this intussusception was a second one, in which the lower part of the ileum, the ascending and transverse divisions of the colon, were engaged. The mass occupied the site of the transverse colon: it was three inches long, by an inch and one-eighth in diameter, and was also crescentic. Its color was not so livid as that of the first intussusception, and it presented no evidence of inflammation. Below it the intestine was nearly empty, and it contained no blood. The mucous membrane of the descending colon, and the rectum, were slightly injected, but otherwise seemed healthy. The intestine was removed entire from the stomach to the anus; and it was suspended first from one and then the other extremity without any appreciable effect on either extremity. An attempt was made to force water, by a syringe, through the upper intussusception, but the water escaped just above the mass; I am not certain that any penetrated it.

The irreducible character of the intussusception in the above cases, was shown by the fact that they sustained weights which doubtless produced much greater traction than that exerted by the intestine in its normal action.

That the displacement existed prior to the moment of death, was shown by the symptoms, and by the congestion of the incarcerated portions, which in one, if not two of the cases, was so great that the capillaries were ruptured.

TEMPORARY PARALYSIS OF THE VOCAL CHORDS AND APHONIA,

THE PARALYSIS OVERCOME BY DIRECT STIMULATION IN A SINGLE OPERATION, AND THE VOICE RESTORED BY LARYNGEAL AND VOCAL GYMNASTICS AT THE SAME SITTING.

By J. SOLIS COHEN, M.D.,
OF PHILADELPHIA.

On the 6th of March, 1866, Mary Ann C—r, of Bristol, Pa., æt. 40, married, childless, was brought by her husband to my office, having been sent by my friend S—, to be treated for a complete aphonia that had existed for several months.

Mrs. C— is a sparely built woman, of good height, of light complexion. She has been married twenty-one years, without issue; has always been "regular;" has always been in good health, and led a pretty active life. Her appearance indicated a tuberculous diathesis, but physical exploration and hereditary history gave no evidence of this condition.

She has unaccountably lost her voice on four or five occasions, the first one occurring about ten years ago. Her voice would return suddenly after a day or two; on one occasion her voice had left her for ten days. More than a year ago her voice suddenly left her, and did not return, despite local (probanging) as well as general treatment, for several months, when it suddenly returned. These attacks of aphonia occurred during the winter and early spring months. In February of 1864 she lost her voice, and remained in this condition for seven months, when she recovered it just previous to an attack of typhoid fever. On none of these occasions had she been exposed to sudden or excessive change of temperature, diet, or habits of life.

The present condition occurred at Christmas. December 24, 1865, was a cold night. She went to bed as well as usual, and when she awoke in the morning she could not utter a sound; in which condition she had since remained.

The aphonia was complete; by no effort I could direct her to make, could a sound be produced. The voice was altogether oral, and in a very low and feeble whisper. Laryngoscopic examination revealed no organic lesion, but the arytenoid cartilages moved but slightly, and that sluggishly; and the glottis remained patulous. The condition appeared to be an idiopathic paralysis of the thyro-arytenoid and other muscles moving the vocal chords.

I told the patient that in all probability her voice could be restored, by passing a current of galvanism through the vocal chords, and to suit her convenience, appointed March 13 for the operation; and directed her meanwhile to practise before a looking-glass, extending her tongue and keeping the base hollowed, and at the same time touching the uvula and pharynx with the handle of her tooth-brush.

At the day appointed she presented herself, and so well had she followed my instructions, that I was able with my probe to touch the vocal chords at the first attempt. Feeling confident of being able to restore the natural condition by a few applications of galvanism, I felt no hesitation in performing an experiment to see

whether other stimulation would not be as effectual; so, without advising her of my change of plan, I dipped a laryngeal brush in tincture of iodine, and inserting it between the lips of the glottis, swept from behind forwards the whole inferior face of the vocal chords. As the instrument and mirror were withdrawn, I saw the tremulous motion of the vocal chords, though reflex action supervened before I could see how closely they approached.

After my patient recovered from the suffocative effect of the application, I again introduced the mirror, and was pleased to discover during respiration a proper movement of the arytenoids.

Directing a vocal effort, the anterior extremities of the chords were seen to approximate, though they did not touch their whole length. The paralysis being overcome, I *insisted* on the patient making a sound, but for a long time without effect. Eventually a short, sharp note, like the sound of a mouse, was produced; and from this I worked, pursuing the gymnastic efforts recommended by Bruns. I first selected the sounds easiest to make, those earliest employed by the infant, as *ah, ah, ah*, making the patient repeat after me. Finally, she was able to make this sound feebly. Then I began with *eh, eh, eh*, with similar result. The sound of the vowel *o* was the most difficult; next that of *u*, next *i;* the sound of *e* and *a* about alike. As soon as my patient could make the sound of *a, e, ah*, I began adding consonants, thus *mam, mam, mam*, as a child does. Notwithstanding she could say *ah* very well, and make the *m* sound with the lips closed, she could not make the syllable except in a whisper. Then I made her hiss between the closed teeth, and during the hiss rapidly make an easy vowel sound, she following all the time the sounds as I made them myself. Thus, *s* prolonged, quickly followed by *a* or *e*, making *say, see*, and so on. As she would make one sound, I would continue it, repeating it gradually more and more rapidly, until she could make it by her own effort. Even when she had succeeded in making the easier vowel sounds, on attempting to utter a syllable, it would come in a whisper.

Suffice it to say, that by continuing this exercise, gradually enlarging the difficulty and number of syllabic sounds, at the end of two hours she was able to converse audibly; but her voice had not its natural strength, though it was of proper pitch.

Her voice daily improved, and on the following Sunday, five days after her gymnastics, she sang in church with a great deal of gusto.

A full month having elapsed without a return of the aphonia, I feel justified in placing this case on record, and recommending the example to be followed in similar cases.

I do not think that the *iodine* was of any benefit, and I attribute the overpowering of the paralysis to the stimulating effect of the direct application of the alcohol of the tincture.

At a future date I propose to present a tabulated statement of similar cases, in which the paralysis having been overcome by direct application of galvanic or other stimulus, the voice has been restored after a few gymnastic exercises.

I shall also have something to say about the therapeutic effect on functional aphonia of vital induction or cerebral energy on the part of the operator.

Produce of Mercury.—The produce of the New Almaden (Spain) mines for the last ten years has averaged about two thousand five hundred flasks, of seventy-six and one-half pounds each, of mercury per month.

SINGULAR WOUND OF TONGUE—OPERATION.

By HAZARD A. POTTER, M.D.,

GENEVA, NEW YORK.

Col. E. Sherrill, of the 126th Regiment New York Volunteers, September 14, 1862, at the battle of Harper's Ferry, received a wound in the face from a minié ball, which entered the left cheek, immediately anterior to the lower border of the masseter muscle, and passed out at a corresponding point on the opposite side.

I was called to see Col. Sherrill immediately after his arrival at his home in this place—about one week after the injury—and found him in an extremely feeble condition. There had been almost constant hæmorrhage from the mouth since the wound was received, and it was evident he could live but a short time unless it was immediately controlled. The buccal cavities were distended with coagula and speech was almost entirely prevented. In order to make the examination thorough and find the cause of hæmorrhage, and to control the same, the patient was placed in a sitting position to prevent the blood interfering with respiration, and chloroform administered to full anæsthesia. I was assisted in the operation by Drs. Dox, Stone, and Gilbert. Having removed the coagula, I found that all the teeth of the lower jaw, except two molars on each side, and some of the upper jaw, had been knocked out. Failing to discover any hæmorrhage from the gums or dental arteries, the examination was continued, and a small hole finally detected on the under and posterior surface of the tongue, from which a constant oozing of blood was apparent. Upon introducing a probe, a hard substance was encountered about two inches from the external orifice. Owing, however, to extensive granulations, it was found impossible to extract the body through the opening. The tongue was thereupon forcibly extended and an incision one inch in length made on the dorsum of the tongue, directly down upon the foreign body, which was withdrawn and found to be a large molar tooth. The ranine artery of the left side and two small branches were secured with silk ligature, the lips of incision closely approximated and the operation was concluded, and the patient rapidly recovered, and in a short time returned to the army. He served with eminent distinction in the Army of the Potomac, and fell mortally wounded while bravely leading his brigade at the memorable battle of Gettysburg.

Effects of Civilization upon the Floral Kingdom.—The Flora of the State of Pennsylvania is found to have undergone remarkable changes, plants that were formerly rare being now quite abundant. This effect is attributed to the spread of railways, and the change is so marked that some botanists think the "foreign" Flora will supplant the native. The valley of the Susquehanna has already been taken possession of by the invaders.

Action of Hydrofluoric Acid upon Glass.—By carefully attacking glass with hydrofluoric acid, microscopic crystals are developed, which proves that we are not yet acquainted with the true composition of this substance. The crystals vary with different glasses.

A New Mineral.—Professor Knop, of Leipsig, while searching for crystallized specimens of crysolite, has found a new mineral, to which, from its appearance, he has given the name pachnolite, from a Greek word, meaning "frost."

Original Lectures.

CLINICAL LECTURES
UPON
DISEASES OF THE GENITO-URINARY ORGANS,

DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK,

By W. H. VAN BUREN, M.D.,
PROF. OF ANATOMY, ETC.

Lecture I.

On Traumatic Stricture.

February 6, 1866.

Gentlemen—We have before us a boy of seventeen, who was subjected to the operation known as "perineal section" for an impassable traumatic stricture of the urethra, at St. Vincent's Hospital, on the 16th of December last, by Dr. Gouley. He has recovered happily from the operation and is cured, as far as a stricture of this sort is curable, by the art of the surgeon. He has been taught to introduce, for himself, a full-sized steel sound (No. 14) into the bladder, and I wish you to witness the facility with which he uses the instrument, and to impress upon you the clinical fact that this is the sole condition by which a cure can be rendered permanent in stricture which has resulted from mechanical injury of the urethra.

You will remember, also, a patient who applied for relief at our last cliuique; he was passing his water with great difficulty, drop by drop, with great straining, and constantly recurring desire to empty his bladder. He was a fine, honest, healthy-looking mechanic, and told us he had fallen astride a beam and bruised his perinæum some six weeks before, whilst at his work as a carpenter. It was ascertained that a full-sized sound was arrested by an impassable obstruction near the triangular ligament; and the point of a fine conical bougie was with difficulty engaged in a hard, resisting, sensitive stricture, through which it could not be passed.

I saw this patient on the same evening with Dr. Gouley, and after a careful examination of his case, I advised that he also should submit to the operation of perineal section. The grounds for these opinions were, first, that the sensitiveness and rigidity of his stricture, in view of the intractable character, established by experience, of traumatic strictures, forbade any reasonable hope of success from the use of dilation; second, that his urethra, behind the stricture, his bladder, ureters, and kidneys, were suffering serious injury from the impediment to the escape of the urine, and that he was in momentary danger of complete retention.

The operation was done by Dr. Gouley on the day but one afterwards, by a process which I will describe to you in detail, and the patient is to-day (the fourth from the operation), passing his water freely by the urethra and through the perineal wound, which is already commencing to heal, and he promises to make as fair a recovery as in the case before you.

The coincidence of these two interesting and important cases furnishes me with a text for some remarks in regard to the proper treatment of traumatic strictures, a subject in which I have taken great interest, and concerning which you will find but scanty and unsatisfactory information in the standard surgical authorities.

Let me promise that over 90 per cent. of the cases of stricture to which the term *traumatic* is properly applied, are the result of contusions of the perinæum, a region of the body which you would suppose was sufficiently protected by its position from external violence; and yet I speak advisedly in asserting that stricture from this cause is more frequent than is generally supposed, for I have collected, without much difficulty, trustworthy details of more than a hundred cases of this nature.

The mode in which the accident most generally occurs is by a fall across a beam, a log, or a fence-rail, or by falling with one leg through a hatchway, a trap-door, or an imperfectly-fastened coal-hole in the sidewalk. A large proportion of the sufferers are boys or young men, and the existence of a bad stricture in early life affords good ground for suspicion that it has resulted from injury, rather than from the more common cause of this disease—gonorrhœal inflammation.

A glance at the anatomical relations of the urethral canal to the pubic arch as it passes through the triangular ligament, in emerging from the pelvis, will explain the frequency of this variety of stricture. The subpubic ligament which forms the summit of the arch, is a dense, fibrous structure of a crescentic shape, presenting a sharp, concave border towards the urethra, which traverses the triangular ligament a short inch below it. Between the urethra and the integument of the perinæum are the more yielding muscular and fascial layers of tissue. Now it is obvious that any violence applied to the perinæum in the way of contusion, would tend to crush the delicate structures which constitute the walls of the membranous divisions of the urethra against the upper border of the hole in the triangular ligament through which it passes, or against the sharp concave border of the sub-pubic ligament. The membranous division of the urethra is surrounded by a cylinder of very vascular, erectile tissue, derived from the *corpus spongiosum*, and, like it, inclosed by an elastic fibrous membrane, and a contusion of the perinæum produces a transverse wound of the mucous membrane lining this division of the canal, and involves the cylinder of erectile tissue which envelops it, just in proportion to the degree of violence of the injury.

We have recently performed some experiments upon the dead body, by bruising the perinæum and afterwards dissecting the injured parts, in order to study the nature and extent of the resulting lesion, employing different degrees of force in different subjects. The result varied with the amount of force employed. In some, the mucous membrane of the canal was marked by a narrow livid circle, with partial division of the membrane; in others, the mucous membrane was entirely cut through, and the erectile tissue exposed; and in others, again, the whole canal was cut across transversely, as with a dull knife, the external layers of tissue maintaining their integrity. The instrument used to bruise the perinæum was the broad end of an ordinary axe; and the degree of force employed in producing the lesion last described was less than you could have supposed.

You will infer from this statement that the usual seat of a stricture caused by perineal contusion is the membranous division of the canal; and this constitutes another point of difference between traumatic strictures as they ordinarily occur in practice, and the more common form of the disease following gonorrhœa. The latter, in accordance with the experience of the best observers, are most frequently encountered in the bulbous expansion of the spongy portion of the urethra, from 4½ to 5½ inches from its external orifice; the for-

mer, an inch, or thereabouts, further from the orifice of the canal.

The symptoms immediately following an injury to the perinæum which has involved the urethra, are first, bleeding from the orifice of the canal, which is almost always present, and generally spontaneous; second, difficulty in passing water, which exists always in some degree, and often amounts to complete retention of urine. When blood does not flow spontaneously from the urethra, the urine is always more or less tinged with it, frequently for several days after the accident, and in these cases the blood has flowed backwards into the bladder. But the remoter consequences of the urethral lesion are far more serious. These become apparent after a variable interval of time, often, in serious cases, within a month after the occurrence of the injury, and they are due to the contraction which accompanies the healing of the urethral wound. A gradually diminishing stream of urine; the necessity of a longer time and more effort to empty the bladder; and, sooner or later, indications of retention of urine, with other symptoms characteristic of urethral obstruction, announce the formation of a stricture, which is found, on examination, to be dense, unyielding, and generally sensitive to the contact of instruments.

These traumatic strictures constitute the worst cases of this disease which are encountered in practice; they are constantly occurring, and are very often badly treated. The opinion recorded by Civiale, the great French authority on diseases of the genito-urinary organs, you will find repeated, with very little variation, by all surgical writers who treat of the subject. He says, "These strictures are for the most part very serious; they are difficult to cure, and often irremediable by the ordinary methods of treatment." This statement accords entirely with my own experience. I have succeeded in curing but one case of traumatic stricture out of nine, by the ordinary method of treatment, viz. dilatation; and the fact that traumatic strictures are not ordinarily curable by dilatation is what makes them so serious. The difficulty of effecting a cure by the process of dilatation is due to several causes: first, the presence of dense, unyielding cicatricial tissue, of which the stricture is formed; which requires great patience to dilate, if indeed it can be dilated, which is not always possible, and which necessitates the constant employment of instruments to preserve the dilatation when secured, so great is its resiliency, or tendency to recontraction; second, the great liability to extreme sensitiveness in these strictures, which is an almost insuperable obstacle to the steady and persistent use of dilating instruments; third, the fact that traumatic strictures so frequently occur in young persons who will not keep up dilatations, when it has been accomplished.

Now as the ordinary method of *dilatation* cannot be relied upon for the cure of traumatic strictures, the question that interests you is—what other method of cure is available which promises better success? I answer, without hesitation, that the best chance of cure in most of these cases is by the operation of *perineal urethrotomy;* that which was performed upon the patient before you, and the successful issue of which, in his case, you can estimate by witnessing the readiness and facility with which he introduces for himself his full-sized sound.

As this case is somewhat classical in its features, I will give you a brief note of its history, deferring, for the present, what I have to say as to the mode of performing the operation.

W. S., a healthy boy of seventeen, messenger on board of a man-of-war, fell with one leg down a hatchway, striking his perinæum against its raised edge, but without a very great degree of force, on the 22d of February, 1864. He was immediately conscious of bleeding from the urethra, and lost, in a pretty continuous flow, about a gill of blood. He refrained from attempting to pass water, through fear of pain, for about fourteen hours, and then failing in the attempt, a catheter was introduced, but no urine flowed—apparently from clogging of the eyes of the instrument by coagulated blood. Half an hour afterwards, while lying in his bunk, a few drops of urine escaped involuntarily, but on rising and making an effort, the stream ceased; when he fell asleep shortly afterwards, his bladder relieved itself spontaneously, and for two days afterwards he passed a pretty full stream, but on the third day contractions commenced, and in two weeks afterwards he had retention again, but no instruments could be passed although attempted daily for two months, his urine being passed meanwhile with great pain and much straining, and only in drops. In this condition he was subjected to perineal section on the 19th of August following, and a No. 8 silver catheter retained in the bladder. Severe chills recurring daily the catheter was removed on the fourth day, and it could not afterwards be reintroduced; but the chills ceased, and the patient was able to pass his water partly through the urethra, and partly through the perineal wound. As the latter tended to heal, the urethral stream was noticed to be again diminishing in size, and at the end of three months it had become quite small, and the wound in the perinæum had contracted to a fistulous orifice which showed no further tendency to close, more or less urine escaping through it at each effort to urinate. On the 16th of December following, I saw the patient in consultation with Dr. Gouley at St. Vincent's Hospital, and recognising his condition as just described, and also that his stricture was apparently impassable by large or small instruments, I advised a repetition of the operation of perineal urethrotomy with the modifications to be detailed presently. After the administration of ether, I succeeded in passing a very fine filiform bougie, which I here exhibit to you, through the stricture, and into the bladder; and with this as a guide or conductor, the operation was satisfactorily completed. The urethra was divided longitudinally in front of and behind the stricture, in addition to the division of the stricture itself, so that a full-sized sound, No. 14, could be readily passed into the bladder; but no catheter was tied in the bladder, according to the usual custom of surgeons in this operation. The same sound was introdnced daily for five days, and after this every second day. He had no chill, or fever; the urine came freely through the wound until it closed entirely at the end of three weeks. To-day, you see, he has been well taught to introduce the sound for himself, and this capacity which he has acquired to act as his own surgeon, will render his cure permanent as long as he deals honestly by himself.

How far this mode of dividing a stricture from the perinæum will prevent subsequent recontraction, where a full-sized instrument is not systematically introduced at regular intervals by the patient, I am unable to tell you; but I am confident that it affords a better chance of escape from this misfortune than any other mode of treatment which is available. I hesitate in speaking to you more positively as to this point—the danger of subsequent recontraction—only because I have not watched the results of cases operated upon in this manner for a sufficient length of time as yet to warrant me in doing so. The feature in the operation upon which I mainly rely to secure this result is, the *free division of the healthy urethra in front of, and behind the stricture, in a longitudinal direction, in the median line, to the extent of at least a half-inch in either direction,* in addition

to the divisions of the stricture itself. This point in the operation is especially insisted upon by Mr. Syme, in the performance of the operation which bears his name, and which, in its general result, is identical with that which we are considering. He claims that it does always prevent recontraction, and bases his assertion upon the experience of over a hundred cases. But the credit of first demonstrating that thorough division of a stricture, together with the healthy urethra in front of and behind it, will prevent recontraction, belongs to the French surgeon Reybard, who asserted the fact as early as the year 1844, after long and careful study and experiment, and in 1852 received from the French Imperial Academy the prize bequeathed by the Marquis d'Argenteuil to the author of the greatest improvement in the treatment of stricture, amounting to $2,500.

I emphasize this point in the operation especially, because I believe that it explains the failure of the first attempt to cure the patient now before you; and I will endeavor to make this more plain when we come to the consideration of the second case. You will remember, in the note I have just read to you, that a catheter was kept in the patient's bladder, after the first operation, until the fourth day, when, in consequence of the daily recurrence of chills, it was removed; and after this it could not be again got to pass, and recontraction rapidly succeeded. Now, in my opinion, this recontraction was not due to the removal of the catheter, but to the absence of a sufficiently free division of the urethra before and behind the stricture at the time the latter was divided. In the second operation this free division was effected, so that a much larger instrument, No. 14, was admitted with ease, *and no catheter was kept in the bladder.* The large steel sound was simply passed daily, for the first five days, and afterwards every second day. Now this leaving a patient whose urethra has been freely divided from the perinæum, without a catheter tied in his bladder, is an innovation in the usual practice of surgeons after this operation; and as I am about to recommend you to adopt it as a measure which will render the patient's recovery more safe and speedy, it is but right that I should lay before you the reasons which appear to me to justify a measure which is somewhat bold as well as novel.

Twenty years ago I was called to a young gentleman of 21, who was suffering with sympt ms of extravasation of urine, and who gave me a history of long-continued difficulty and straining in passing his water. I found a very tight stricture in the membranous portion of the urethra, through which I was unable to introduce my smallest instrument, and ascertained that he had never had a clap, but had bruised his perinæum severely upon the edge of a chamber-vessel in early childhood. Fortified by the counsel of my friend, Dr. Gurdon Buck, I proceeded at once to incise his perinæum in the median line, and succeeded in dividing the stricture and introducing a silver catheter, No. 12, into the bladder, which I retained by a proper bandage, removing and cleaning it from time to time for nearly five weeks. He recovered entirely in about two months, and has remained under my observation ever since. I taught him to pass a steel sound for himself, and he uses a No. 10 at the present time; but I have had occasion very often to recognise the remains of the old stricture, and a distinct although not serious tendency to recontraction. This I attribute to my failure to divide the stricture more freely into the healthy urethra before and behind it. I also recognise very distinctly a hardness and rigidity of the walls of his urethra throughout its whole length; and this I attribute to the suppurative inflammation and submucous exudation caused by the long retention of the catheter in the canal.

Not long after this, in a case of impassable stricture with perinæal fistula, in which I did the same operation at Bellevue Hospital, and left a silver catheter in the bladder, an ulceration through the floor of the urethra, at the angle of junction of the penis with the scrotum, occurred in the third week from the pressure of the instrument. I find from examination of hospital records of similar cases, that this accident is not very rare at this point of the urethra. In consequence of the insertion of the suspensory ligament of the penis just opposite to it, this is one of the points in the canal upon which a solid catheter retained for any length of time in the bladder, is always likely to exert undue pressure. If I felt at liberty to cite the mishaps of others as well as my own for your instruction, I could detail to you numerous examples of serious injury resulting from the prolonged retention of the catheter in the bladder—flexible as well as metallic. Besides chills and urinary fever, and ulceration of the urethra from pressure, I have encountered instances of cystitis, calculous formation, ulceration of the bladder, and fatal peritonitis from this practice. Moreover, I have satisfied myself by personal observation, as well as by the study of recorded cases, that the presence of a catheter in the bladder after this operation, retards the healing of the perineal wound, and thus increases the danger of permanent perineal fistula. The convexity of a catheter of ordinary curve, unless the point of the instrument is projected into the cavity of the bladder further than is consistent with the safety of this organ, will make pressure more or less directly over the seat of the urethral incision; and this is especially the case in traumatic stricture, where the incision necessarily involves a part of the membranous portion of the canal.

Influenced by this experience, I had long since abandoned the practice of leaving a catheter in the bladder, after incision of the urethra through the perinæum, for a longer period than forty-eight hours; further experience and observation have recently satisfied me that it is better for the patient, unless in exceptional cases, that the catheter should not be left in the bladder at all—as in the cases which form the basis of these remarks.

In justification of this conclusion, I think, in the first place, that the experience of practical surgeons will confirm the operation, that the tying of a catheter, either metallic or flexible, in a man's urethra and bladder, is a proceeding always attended by more or less discomfort, and often with danger. In some cases, the instrument cannot be tolerated from the moment of its introduction; in many, pain and uneasiness are constantly present; in others, chills and febrile reactions necessitate its removal—as in the case before us. It is, therefore, to be regarded as an evil, in a greater or less degree. Now, in the second place, what is the compensating good which justifies the practice? It is the general impression, I believe, that the presence of the catheter in the bladder, by preventing the flow of urine through the newly-made wound, will obviate the bad consequences attributed to the contact of urine with a recently-cut surface, and will subsequently facilitate its healing; it may be, also, that extravasation of urine through the walls of the incision is apprehended by some.

I question the correctness of these views, on the following grounds: 1st, The presence of a catheter in the bladder does not prevent the escape of more or less urine through the wound, which almost invariably occurs in some degree, either at the time of the operation or subsequently. I have observed this fact in quite a number of cases, and it is mentioned in a large proportion of recorded cases. 2d, The consequences of contact of urine with the walls of a recent incision are not

serious, as is demonstrated after the operation of lithotomy. 3d, In the recorded cases which I have studied, the closure of the perinæal wound is certainly delayed by the presence of the catheter in the bladder; and it takes place most rapidly where no catheter is worn. Finally, a fistula following the operation of lithotomy is exceedingly rare, and here the urine flows through the wound from the moment of the operation. As to the danger of extravasation of urine through the walls of the incision, it is only to be apprehended where the deep layer of the triangular ligament, the pelvic fascia, has been divided; or, to the extent of a few drops, when the scrotum has not been properly supported after the operation—a precaution too often neglected. Abscess in the scrotum, generally trifling in extent, and occurring in the second week after the operation, occurs because the anterior extremity of the perinæal wound involves its base posteriorly, and in consequence of its depending position. I notice the occurrence of this accident in some of Mr. Syme's recorded cases. It may always be averted by the use of a sling bandage for two or three days, or until the wound has suppurated.

These, then, are the considerations by which I am induced to recommend you to adopt a practice different from that usually advised, after division of a stricture of the urethra from the perinæum. It remains for me to demonstrate to you, by the results of actual practice, that it possesses the advantages I have claimed for it. Besides the case of the boy now before you, which, in regard to this point of treatment, furnishes the most satisfactory evidence, Dr. Gouley, who, as far as my knowledge extends, was the first to adopt this practice, has also employed it with equally favorable results in other cases. And this brings me to the case of the carpenter who was the subject of the operation five days ago, whom I hope to bring before you in a fortnight or so, when we will study its progress and result.

Reports of Hospitals.

JEFFERSON MEDICAL COLLEGE OF PHILADELPIA.

Surgical Clinic, March 24th, 1866.

SERVICE OF PROF. GROSS.

URINARY CALCULUS—LITHOTOMY.

Wm. D——n, æt. 21 years, by occupation a collier, has suffered from symptoms of vesical trouble for eleven years; an examination with the sound reveals the existence of a stone apparently of a considerable size. His general health is pretty good, but he is somewhat pale. He has a good appetite, sleeps well, and is not obliged to pass water as frequently during the night as when up and walking about. He is unable to perform his work as a laborer, and suffers locally with the ordinary symptoms of stone in the bladder, such as difficulty in passing water, necessitating straining and bearing down in relieving himself, and the peculiar pain in the penis, which is always the result from the contact of the stone with the mouth of the urethra or the neck of the bladder. The penis of the patient is unusually large, the prepuce elongated and in a state of hypertrophy.

Whenever a patient labors under stone in the bladder, there is a constant uneasiness of the parts reflected to the anterior portions of the penis and the foreskin, which constitutes a prominent symptom. The individual is obliged to take hold of these parts, and they are often found, especially in children, completely sodden, as are also the hands of the patient; this condition being the result of maceration from the contact of urine. There is also in the patient presented, as is frequently the case, though not generally so, more or less of urinous odor, not occurring from any transpirations of urine, but from the fact that the urine is brought into frequent contact with the clothing, leaving its peculiar odor in this manner, and this odor is sometimes thought characteristic of the nature of the affection. During micturition, there is frequently, often constantly when the stone lies loose in the bladder, a sudden arrest of the flow of urine, caused by the calculus coming into contact with the mouth of the urethra and occluding the orifice, so that the patient is obliged to change his posture for a position favorable to effect a change in the position of the stone before he can evacuate his bladder. He may have to lie down, or to sit down, or elevate his hips, or assume some other position; sometimes it is necessary for him to bend his body forwards until his head comes in front of his thighs.

In consequence of the constant straining in many cases of urinary calculi, the patient is apt to suffer from *hæmorrhoids*, and from *prolapse of the bowel*, especially in children and elderly persons, in whom the parts are easily relaxed. *Hernia* is not uncommon in these cases, brought on merely from the immense amount of straining to which the patient is subjected during the process of micturition. Sometimes there is *hydrocele;* occasionally *orchitis;* and not unfrequently *neuralgic pains in the sacro-lumbar regions.*

Though a patient with stone in the bladder may be in very good health, his system becomes deteriorated after a time; he becomes susceptible to atmospheric changes, ultimately becomes dyspeptic, emaciated, worn out by the disease of the bladder; the mucous membrane of the bladder may take on inflammation; there may ensue hypertrophy of the organ; inflammation may extend along the ureters to the substance of the kidneys, and, if not relieved, the patient may die from the affection.

The patient presented to the class is from a region of country where the water is freestone, and, what is somewhat remarkable, Dr. Gross has had under treatment ten or fifteen cases from that region, all within a narrow compass. The opinion was formerly very prevalent, and perhaps is still so, that calculous diseases are most common in limestone regions, because the subjects drink lime-water. Dr. Gross is not prepared to endorse this view. It is certain that, in this country as well as in other countries, stone in the bladder is most frequent in regions of that description; but it is not proper to claim that the habitual use of limestone water exerts any influence on the induction of the disease. The fact, if it be one, has not yet been established. In his own experience, Prof. Gross has known numbers of instances where stone has been developed in individuals residing in regions of country where the water was entirely freestone in its character. He had several cases from Georgia, where there is no limestone water.

The most common variety of calculus is the *uric acid* calculus. In this, and also in other countries, the *phosphatic calculus* is exceedingly uncommon, and is met with chiefly in persons who have experienced injury of the spinal cord. The *oxalate of lime calculus* is uncommon in this country, as is also the *ammoniaco-magnesian* variety. The great majority of calculi are of the nature of the lithic acid or uric acid variety. There are other varieties of calculi besides those mentioned, but they are also exceedingly infrequent.

This disease is liable to occur at any period of life. It is sometimes congenital, sometimes makes its appearance soon after birth. The youngest patient Prof.

Gross ever cut for stone was an infant about fifteen months of age, operated on before the class some ten years ago. He has performed the operation repeatedly on children before they had reached the age of three years. The best subjects for the operation are young children and elderly persons. Dr. Gross has performed the operation on patients upwards of eighty years of age. In one instance, he removed five calculi, of variable dimensions, from the bladder of a gentleman seventy-three years of age, who had considerable enlargement of the prostate gland, and who recovered without a single untoward symptom.

The operation to be performed in preference to any other is the *lateral operation*, so called because the incisions are made on the left side of the middle line of the perineum. The incision should begin about one inch above the verge of the anus, just on the left side of the raphe, and be carried down obliquely outwards and backwards, nearly midway between the anus and the tuberosity of the ischium, but nearer to the tuberosity than the anus, so as to terminate a short distance below the verge of the anus. The incision should not be more than one and three-fourths or two inches in length. Prof. Gross formerly made longer incisions, but now finds advantage in making his incision small, and has experienced no ill effects from infiltration of urine or otherwise since he has adopted this plan. The size of the incision made in the adult by many surgeons is three inches or three and a quarter inches in length. The surgeon makes his first incision through the skin and superficial fascia; in the next place, introducing the left index finger in the upper angle of the wound, he carries the knife through the transverse perineal muscles, dividing, of course, the transverse perineal artery running along its posterior border; he divides the deep layers of the perineal fascia, some fibres of the elevator muscle, the transverse ligament, and the membranous portion of the urethra, to the extent of about three or four lines, sufficient to enable him to introduce the point of his index finger, which is brought into contact with the groove of the staff; he inserts his instrument into the groove, and divides the left lobe of the prostate gland in a direction obliquely downwards and outwards, which is that of its long axis. He imparts a horizontal direction to his knife, so as to avoid interfering with the rectum, which is pushed towards the right side with the finger.

This constitutes the operation of lithotomy, divided into three stages, for the sake of convenience of illustration.

When the perineum is large, loaded with fat, presenting great depth; and when it is very narrow, as is not infrequent, especially in elderly subjects, the operation is embarrassing and even difficult; but under ordinary circumstances it is sufficiently simple.

The knife employed by Dr. Gross is a slightly spear-shaped, sharp-pointed bistoury, cutting at one edge. It is a very delicate instrument, the blade being three inches in length, and a trifle over two lines in width. With this knife the entire operation is performed. The staff employed is catheter-shaped, and always sufficiently large to distend the urethra moderately; the handle is large and rough, to enable a good hold to be taken, and the vesicular extremity is rough; the groove is deep and wide, and placed a little towards the left side; it is warmed, then oiled, and introduced as an ordinary catheter would be. It is held firmly under the pubes by a trustworthy assistant, and hooked up under the arch, with a very slight inclination of the handle over towards the right side. Care must be taken that it be not pressed upon the rectum, lest that tube be interfered with. The instrument must be securely lodged within the bladder.

In performing the operation of lithotomy, if the incisions made have not afforded sufficient room for the extraction of the calculus, the parts should be lacerated by means of the finger to the necessary extent.

The moment the incisions have been made into the bladder the urine gushes out in a full stream, and the stone is propelled down against the upper extremity of the wound. The surgeon introduces the forceps into the bottom of the wound, and carries the instrument into the bladder. When it comes in contact with the substance the blades are expanded, a firm grasp taken of the stone, and an effort made to effect extraction on the same principle as the head of a child is extracted in labor, moving it from side to side and forwards and backwards. After the extraction of the calculus the bladder should be washed out with tepid water, thrown in a full stream from a large syringe.

Sometimes it is necessary to divide the right lobe of the prostate to a greater or less extent; but such a necessity rarely presents itself.

Hæmorrhage may occur merely from division of the transverse perineal artery, which occasionally becomes considerably enlarged, and affords a large flow of blood. Or the superficial perineal artery may be divided, as rarely happens, and that may bleed; or the artery of the bulb may be divided. This is a short, thick, stunted trunk, situated deep down between the layers of the triangular ligament, and is cut sometimes when the incision is made too high up.

There may be serious hæmorrhage, even to a fatal extent, where there is an anomalous distribution of the internal pudic artery running along the side of the left lobe of the prostate, when the knife cannot avoid it.

Before operating for stone, the patient should be subjected to some necessary preparatory treatment; and shortly before the operation the bowels should be emptied, because it will be necessary that there should be no motion of the bowels for some days after the operation. As it is of importance that the bladder should be full during the operation, the patient is always directed to hold his urine for several hours.

After an operation for stone, the surgeon experiences considerable anxiety for the first twelve or fifteen hours, for fear of hæmorrhage. If the urine comes away kindly, not blocked up by coagula, it is a favorable indication. If coagula are expelled from time to time, it is evidence that bleeding is going on, and this is not always easily arrested. Hæmorrhage is to be arrested by ligature or torsion, and, when this is impracticable, by compression. A canula pierced with two holes at its perineal extremity, to secure it to a proper bandage, is introduced into the bladder, and serves to compress the bleeding vessel, and also conduct off the urine. This, of course, will interfere with the union of the wound. Styptics, cold water, exposure to the air, etc., may serve to arrest hæmorrhage.

Dr. Gross gives his patients some sulphate of morphia before he operates, and as soon as they revive from the effects of the chloroform, which is the anæsthetic he employs, he gives half a grain more. Patients who have been operated upon for stone must be treated antiphlogistically. Spasmodic bearing-down pain comes on until the urine finds a free outlet, when it gradually subsides. Dr. Gross does not introduce any tube into the bladder to conduct the urine off. He considers this altogether unnecessary. The tube retained in the wound cannot fail to act as an irritant to the parts and provoke spasm.

The patient before the class was operated upon in the manner described, and a large lithic acid calculus

extracted, weighing nearly two ounces, and measuring two inches and a half in length, two inches in width, and one inch in thickness.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, MAY 16, 1866.

Dr. JAMES ANDERSON, President, in the Chair.

Drs. S. W. FRANCIS and F. H. HAMILTON were complimented by a vote of thanks for their several donations to the Academy of fifty-nine illustrated volumes of the *Dictionnaire des Sciences Medicales* and two volumes of Dr. Hamilton's work on *Military Hygiene*.

RESECTION OF THE ELBOW-JOINT.

Dr. POST, for the purpose of showing a result which some might never have an opportunity of seeing, introduced a lady, now in her 21st year, who had been the subject of an operation by him when ten years old. About a year before this the patient had received a violent injury of the left elbow-joint which had been neglected, and which, in his opinion, was essentially a fracture, but of what character he could not determine. At all events, the resulting anchylosis which prevented her carrying the hand to the mouth was firm though not bony. For the relief of the difficulty he resorted to a longitudinal incision upon the posterior side of the limb, and removed about one-half inch of the *os brachii* at the end; but this not having secured the requisite mobility, he took away at the second operation about one inch more. He preferred the single longitudinal incision, notwithstanding its difficulty, to the transverse method, because by it the fibrous structure which contributes so much to the strength of the articulation was not divided. Both bones of the forearm remained undisturbed at each operation. Her deformity amounts to a shortening of about two inches, and a certain attenuation of the limb, but these deficiencies are more than counterbalanced by the restored functions of the joint; she can carry a pail of water and perform her household duties quite comfortably.

THE RESULT OF A CHEILOPLASTIC OPERATION.

Dr. BUCK presented to the notice of the Academy two plaster casts and several photographs by way of illustrating the results of two operations for the relief of a deformity consequent upon a shell wound received during the month of September, 1864. This patient he had been privileged to operate upon at the Central Park Hospital during the succeeding February by the courtesy of Surgeon B. A. Clements, U.S.A., then in charge. The patient's mouth was then quite contracted, his under lip drawn in, adhesions and cicatrizations interfered with both articulation and deglutition, and he was compelled to wear a tin gutter underneath the chin to carry off the constantly-escaping salivary secretion. He had removed the right half of the lip and detached the remainder. This and other details occupied two hours or more, but notwithstanding the loss of blood, which was considerable, and the continued anæsthesia by ether, his pulse was not at all depressed. In eight days the sutures were all removed. The result of the whole was an improvement in mastication and articulation as well as a confinement of the saliva to its proper office, but the mouth was defective in symmetry, three-fifths being on the right side, and the remaining two-fifths on the left. He, therefore, induced him to return to the city, and, in January last, resorted to a second operation, by which that difficulty was overcome, while the recession of both lips, which was due to the loss of the front teeth by the original accident, was remedied by the ingenuity of Mr. Bishop, of Twelfth street, who adapted a plate to both maxillæ.

MEASURES FOR THE PREVENTION AND RELIEF OF CHOLERA.

Dr. STEPHEN SMITH read a paper entitled as above, in which, after demonstrating that the too often neglected preliminary diarrhœa was curable, he advocated "house-to-house visitation." This plan, and the inducements held out to the poor to seek relief for the slightest derangements of the bowels at the various charitable institutions, denominated for convenience sake "Medical Centres," had proved, as shown by statistics, eminently successful. Transportation of patients to far distant hospitals had been attended with a greater amount of mortality than treatment at patients' homes. For this and other reasons he favored small hospitals in the locality of the epidemic. He also advised temporary accommodations for the poor while their abodes were undergoing purification.

This paper, on motion of Dr. BATCHELDER, was referred to the Council for publication, after which the Academy adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, JAN. 25, 1866.

DR. FRANK H. HAMILTON, President, in the Chair.

GUNSHOT WOUND OF BLADDER—A CALCULUS WITH A FRAGMENT OF BONE FOR NUCLEUS, ETC.

DR. LIVINGSTON presented a specimen removed from the bladder of a man whose history he gave as follows: The patient, 26 years of age, was wounded in the battle of the Wilderness, May 2, 1864. The missile was supposed to be a minié ball. It entered the body near the right inguinal ring, and passing through the bladder, made its exit near the median line through the centre of the sacrum. He lay upon the field some five weeks without any treatment, and in the hands of the enemy. The only shelter he had was a canvas screen. He kept the wound cleansed by the use of cold water. The urine then passed constantly through the anterior opening. About the 10th of June he was removed to Lynchburg, where he was under the care of Dr. Chalmers. About the first of July the urine began to pass through the urethra, and by the middle of the September following the anterior opening was entirely closed, all of his water passing through the natural channel. The posterior opening, of which very little notice was taken, must have also closed by this time.

About the first of December, after having suffered from chronic diarrhœa for six weeks, he was transferred to a hospital at Annapolis, in which institution he continued until the first of January, when he was discharged and sent home

In the middle of September, about the time the anterior opening closed, he began to experience the first symptoms of stone in the bladder. These symptoms continued to increase in severity while at the Annapolis hospital, but no particular attention was paid to them by his attending surgeon except by the occasional administration of a diuretic. He continued to grow worse up to the sixth day of August last, having in the meantime received no treatment or counsel whatever. That day I saw him for the first time, he was then spending the whole

of his time endeavoring to relieve his bladder, being able to urinate only by drops. There was a large abscess seated in the lower part of his abdomen; he was in a very low condition, and was evidently destined to live but a short time. The seat of the anterior wound was covered only with a slight membrane, which, after protruding a half or three-quarters of an inch during every effort to expel urine, would at length give way, allowing the water to escape by the opening thus formed.

A sound was passed into the urethra, and at the membranous portion of the canal came in contact with a hard substance; and on passing beyond this point, another hard substance of larger size was encountered. The indications were then clear enough; the abscess was immediately emptied and a poultice afterwards applied; stimulants were freely given; and from the very fact of overcoming the obstruction in the urethra by the passage of the instrument, the irritation of the bladder was in a measure relieved and the patient enjoyed a little rest. On the 18th of August his condition was so much improved that it was determined to remove the foreign body, which was of course supposed to be a calculus. On that day, assisted by Prof. Markoe and several other medical gentlemen, I removed this stone. I did this by the median operation. I selected that operation for two reasons. In the first place, his condition was so low that every drop of blood was a matter of a good deal of moment to him; in the second place, being satisfied that there was something within the membranous portion of the urethra immediately behind the bulb, I thought it better to open the urethra by the median line. Almost immediately after the operation, this little fragment, which proved to be bone, was felt in the membranous portion of the urethra. The operation was very simple; the stone was readily grasped and with very little effort extracted. I would here make one remark in connexion with this operation. Great stress has been laid upon the difficulty of removing calculi of any size through the prostate; in this instance there was no difficulty whatever, except only so far as it related to the cellular and integumentary tissue in that locality. Immediately after the stone was removed, a piece of bone of larger size than it, floating around free in the bladder, also came away. After finding that nothing further remained, I syringed out the organ with water, and afterwards applied cold-water dressing to the wound. In the course of ten days afterwards the urine passed entirely through the urethra, and the patient was able to walk about the room. About six days ago he called at my office to tell me that he had not the slightest pain or annoyance in urination since the operation. The ball must have struck the upper border of the pubic bone and chipped off some small fragments, which were driven into the bladder; and around one of these pieces, as is proved by the calculus here sawn open, the calcareous matter was deposited. There was no doubt but that the nucleus of the stone was bone.

Dr. Lidell remarked that the case, so far as his knowledge extended, was a unique one.

Dr. Hamilton stated that a number of cases were recorded in which balls found an entrance into the bladder and lodged, but he had never heard of an instance in which fragments of bone had been driven into the organ in the manner described by Dr. Livingston.

Dr. Livingston said that there were no other evidences that the bone had been injured than were presented by the appearance of the calculus, and by the positive statement of the patient himself.

CASES OF OSTEO-MYELITIS.

Dr. Lidell presented several interesting specimens of osteo-myelitis, and gave the following account of them:

This came from a patient who had suffered a gunshot fracture of the thigh, for which he was admitted into Bellevue Hospital on the 28th of September last, having been wounded on the previous night. The femur was fractured at about its middle. He was treated with Buck's apparatus for about eight weeks, and seemed to do well; but at the end of that time, when the apparatus was removed, union was found not to have taken place. It was also found, on exploring the wound, that there was a piece of detached bone in the interior of the thigh. A short time after, this was removed by operation. After that the case was treated with sand bags, together with a moderate extension of four pounds weight. It was soon noticed that the appearance of the soft parts was not so good as it had been, that the granulations were becoming changed in color and were paler than usual, and that the patient's health was beginning to be impaired. His appetite was getting poor, and he complained of feeling weak. After this he took pyæmic sweats, then his skin became sclerotic; he then was attacked with diarrhœa, and soon sank into a typhoid condition. He then had many of the symptoms which pertain to osteo-myelitis. I will mention one—that of *pain*—and say that according to the statement of the House Surgeon, it did not seem to constitute a prominent symptom at any time. He had pain in the thigh, which might be as well referred to the inflammatory mischief going on in the muscular tissue as to anything else. He died on the 4th of January. The autopsy was made ten hours after death, at which, besides infiltration of the soft parts of the thigh, there were abscesses in both lungs and sero-purulent effusion in both pleural cavities.

I hold in my hand the superior portion of the thigh which has been sawed open. On looking at its exterior you see about it a considerable quantity of new osseous deposit. Attached to one side of it you see a large fragment of new bone; this portion bridges over the chasm between these two fragments. It is still attached to the moiety of bone. Above this new osseous deposit the periosteum was thickened, loosened, and reddened. The surface of the bone is also roughened; the longitudinal grooves are much larger and deeper than normal. The surface of the bone is somewhat redder than natural. On examining its interior, the medullary cavity is seen to be the seat of an enormous abscess, extending from the fractured extremity up to the cancellated structure of the superior epiphysis, surrounded by red marrow. The suppuration extended far up into the cancellous structure, even to the cancellar border of the bone. The so-called abscess was examined, and found to contain pus. The red medullary tissue was found to contain granular marrow cells in great abundance—an increased amount of connective tissue with spindle-shaped marrow cells. The interior moiety of this thigh has upon its external aspect a considerable quantity of new osseous deposit. Continuing the examination of the exterior of the bone, we find the periosteum, in the neighborhood of the new osseous deposit, red and thickened. It was not detached, except at points here and there. Examining the interior of the bone, we found the medullary canal at the fractured end of these fragments closed by a new osseous deposit. Proceeding further down, we found an opening in the nature of an ulceration extending from the exterior of the bone through into the interior of the medullary canal. A little further down we discovered a piece of old bone which had been driven into the medullary canal by the projectile. Lower still the medullary tissue was of a light red color throughout, except at the epiphyseal extremity, where it was a little yellow. The microscopical examination of the red marrow showed it to consist of highly granular marrow cells, mostly having but one nucleus, a small amount of

connective tissue, a few fibrous cells, blood-vessels, a few fat vesicles, and some free fat. The seat of the slough examined by the microscope was found to consist of granular matter, connective tissue, and free oil; the walls of the fat vesicles being broken down by the destructive process.

The next specimen is one of osteo-myelitis, which, like the preceding one, also occurred in the practice of Prof. Hamilton, in Bellevue Hospital. This patient was 28 years of age, and was admitted on the 22d of December, on account of a chronic diseased condition of the elbow-joint, having a traumatic origin. This man had suffered an injury of his elbow-joint, in the nature of a contusion inflicted by the recoil of a gun. This was followed by suppuration of the joint and surrounding soft parts. As the result, the joint was left in a carious condition, for which it was judged advisable that exsection should be practised. On going through the steps of the operation, however, and on cutting through the upper extremity of the radius, pus escaped; a second section through another portion was followed by a like result, whereupon it was deemed necessary to make an amputation higher up, which was done. On the following day pyæmia supervened, and the man sank afterwards and died on the seventh day after, of pyæmia. At the autopsy visceral abscesses were found in both lungs, and sero-purulent fluid in the left pleural cavity.

Examination of this bone shows the medullary tissue to be inflamed, and to present a decidedly striking contrast to the other case.

Looking at the exterior of this bone, you do not see any new osseous deposits. The periosteum, however, is detached for the distance of an inch and a half in some situations, and an inch and a quarter to an inch and a half from the sawed extremity of the bone upwards. Here the periosteum was reddened and considerably thickened. I may say, likewise, that the loosening of the periosteum extended some distance above the place of complete separation. Where separated, the periosteum was pale, dry, and of the yellowish-white color of necrosis. On opening the medullary canal by a longitudinal section of the saw, the marrow was of a copper-red color, firm and flesh-like; it was so firm, that upon its surface it left wave-like lines after the saw. On introducing the handle of the scalpel between it and the bone, you could lift it all out as one piece of flesh. At the divided end of the stump bone it had a darker color, and was detached to some extent from the surrounding osseous wall. On examination by the microscope, this red marrow was found to consist in great part of a moderate amount of highly granular marrow cells, some with two, three, or four nuclei. Higher up, about opposite the surgical neck of the bone, the parent marrow cells were more numerous, and one was found containing as many as nine nuclei. There was also in this specimen of marrow a large quantity of fat vesicles, which accounts for the yellowish hue of the substance.

I have still another specimen of inflamed marrow, which contrasts strongly in some respects with the specimens already exhibited. This comes from a case of compound fracture occasioned by a railroad accident, which was treated at St. Vincent's Hospital. The young man was admitted to that house on the 14th day of November, having sustained an injury, fourteen days previously, between the bumpers of the cars. About two weeks after the accident pyæmia set in, with which he lingered until the 12th of January, when he died. At the autopsy, the cadaver was very much emaciated; the right thigh, which was the fractured one, was greatly swollen. On cutting open both the thigh and the leg, the limb was found extensively infiltrated with pus. The pus burrowed downwards into the popliteal space, into the leg and knee-joint, which was found to be stiffened by a process of anchylosis which was going on. The bones were in the condition which you will see here. There was no effort at union, the fractured ends being irregularly rounded off. You will observe also on each of these fragments new osseous growths in the nature of periostosis. On the upper fracture, above the seat of the new deposit, the periosteum is red and thickened, but not detached. You notice the same grooves which were seen in the first case, and which are so indistinct in the natural state. On cutting it open the marrow was seen at the lower end of these fragments to be gangrenous. The sphacelus was of a brown color, but had not proceeded so far as to make the marrow break down. Proceeding upwards in the medullary canal we find a new osseous deposit, following which we also find that the marrow becomes paler. Higher up again it is deeper in color, until at the end we find it a deep brown. The marrow was softer than in the other cases. In the inferior fragment the marrow had a pale red color.

But the most interesting feature was the condition of the joint. Here we see anchylosis occurring by a new osseous development from the articular surfaces of the femur. I may say that this joint, on being first opened, presented a deep red color, most intense at the point where the new osseous growths were taking place—very intense at the patella, which is already adherent to the femur.

I have still another specimen of osteo-myelitis. A young man aged 25, of robust and healthy parents, was admitted into Bellevue Hospital on the 9th January, 1866, in the service of Dr. Sayre, with a compound complicated fracture of the leg, resulting from a railroad accident the day previous. There was a lacerated wound on the inner side of the leg, about three inches in length, which communicated with the bone by a small orifice. There was no other wound, but all the soft tissues were very much contused. His general condition was good—suffering very little pain. "Jan. 11, limb very much ecchymosed, and more swollen. Jan. 12, pulse hurried—tongue furred—no appetite—limb swollen and tender—discharge of bloody serum from wound. Jan. 16, pulse 100. Erysipelas has attacked the limb, extends nearly whole length of thigh—sloughing of skin on outer side of leg. Jan. 17, line of demarcation formed. Gangrene of superficial tissues from below knee to a short distance above ankle on outer side of leg. Jan. 18, pulse 104—vomiting—large slough removed—tendon of muscle and fragment of fibula exposed. Jan. 19, pulse 90, slight delirium during night—vomiting continues. Jan. 20, pulse 90, tongue dry and furred, erysipelas disappearing from thigh—vomiting has ceased. Jan. 21, pulse 90. General appearance of limb is better, although there has been an immense destruction of tissue. 8 P.M., pulse more feeble. From this time he continued to grow worse, and died Jan. 22d, at 5 A.M."

I have read the history of this case to you for the purpose of showing that the patient did not die of those pronounced symptoms which we are in the habit of calling pyæmia.

We here see the protruding red marrow of the inferior fragment. Examined exteriorly, we have thickening, reddening, and detachment of the periosteum. No doubt, by sawing open the bone, the marrow will be found in an inflamed condition throughout.

In the case of the first specimen, there was pyarthrosis of the hip-joint. The cartilage of incrustation of the head of the femur was not discolored, though at two

or three points it presented an appearance as if holes had been punched through it, and that the cancelli underlying these holes were suppurating; and it appeared to us that the morbid process had extended from the interior of the cancellated tissue into the interior of the joint by this method.

Dr. Hamilton remarked that he had taken a great interest in the first case described by Dr. Lidell. The failure of Buck's apparatus was not due to any separation of the fragments, as they were found overlapped more than half an inch. The fact is, the patient had been for a long time suffering under chronic diarrhœa; the bone was much comminuted by the ball, and several fragments had been removed before he came under Dr. Hamilton's notice. The amount of extension employed had never exceeded twelve pounds, and during most of the period it has been much less.

CYSTIC DEGENERATION OF THE KIDNEY.

Dr. Reynolds presented a specimen of cystic degeneration of the kidney which had been sent to Dr. Clark from the Kings Co. Hospital, with the following history:

The patient from whom these kidneys were taken entered Kings Co. Hospital, January 15. She seemed rather foolish, and when questioned as to her complaint would answer "*chills.*" As far as could be learned from her, she had suffered from them for three months, and nothing more could be elicited concerning her case.

The third day after entering hospital she was taken with convulsions, and in a few hours became profoundly comatose. She remained so for forty-eight hours, and died. At post-mortem the kidneys were found in this state—one weighing *two* pounds and *four* ounces, the other *one* pound and thirteen ounces. She complained of no pain whatever, and the urine, though of less quantity than would be expected, seemed to be of the natural color and clearness. Nothing particular was noticed about the other viscera.

ANEURISM OF ARCH OF AORTA.

Dr. Reynolds also presented an Aneurism with this history:

Sarah Peterson (colored), aged thirty-eight, had suffered with pain in the chest for past five years, which was attributed to neuralgia. In November, 1864, the pain became more intense, and on examining her chest she discovered a small lump, the size of a black walnut, a little to the right of the upper portion of the sternum.

Dr. Parker saw her in December, and pronounced her trouble aneurism of arch of aorta. Dr. Clark saw her shortly after, and confirmed the diagnosis.

The tumor increased gradually in size till January 16th, 1866, when death was caused by exhaustion and interference with respiration. Shortly before death the tumor measured 18 inches in circumference at base; 6½ inches vertically and 6¼ inches transversely. There was no murmur audible anteriorly at any time, but over the spinous process of the cervical vertebræ a blowing murmur could be distinctly heard.

REMOVAL OF PISTOL BALL—USE OF ACUPUNCTURE NEEDLE.

Dr. Buck then presented a pistol ball, which was only interesting from the manner in which it was extracted from the wound by the successful application of the acupuncture needle. A colored man while carrying a pistol in his fob found it slipping out, and in attempting to push it down it discharged its contents into his groin immediately below Poupart's ligament, just two inches outside of the femoral. On introducing a probe into the wound of entrance, it followed a track over the inner condyle and a little above it, and at its bottom a firm body was encountered that was about the size and shape of the missile that was supposed to have been lodged there. This body could be slipped within a certain limit, and its movement would cause pain. Presuming that it was the ball, there was not certainty enough in the diagnosis to warrant an attempt at its extraction until the acupuncture needle was used. This was passed down in the situation of the deep-seated lump through the tissues, and encountered the foreign body. By certain manipulations it was found to escape from the point of the instrument and roll aside, which fact left no doubt in the mind of the presence of the projectile at that point. It was then cut down upon by a narrow-bladed knife, and removed without difficulty. Dr. Buck remarked that his attention had been first called to the needle by seeing a published account in some of the medical periodicals of its use by a Scotch army surgeon, whose name he did not recollect. Dr. Buck also stated in this connexion that he had employed the same procedure with success in discovering the existence of a calcareous body impacted in the prostate gland. The needle in this instance was curved, and was introduced into the gland upon the finger as a guide. The needle is very fine, and has a trocar point in order to facilitate its entrance into the tissues. The society then adjourned.

The International Sanitary Commission in Constantinople.—A correspondent under the date of 24th, writes from Constantinople that "the members of the International Sanitary Commission have resolved into two factions—English and French—the former headed by the Secretary of the English embassy, Mr. Stuart, formerly of her Britannic Majesty's legation at Washington.

"The chief subject of discussion is that of a quarantine to be placed upon all vessels arriving at the eastern ports of the Red Sea from those of British India. As the pilgrim passengers which these convey are all subjects of her Britannic Majesty's possessions in India, such a detention naturally affects them most. Some of the members hold that the epidemic can be checked and arrested by rigid quarantines and by thorough fumigating, while others, in the minority, say that, being an epidemic, it is not transmissible by contact with infected clothing or by diseased individuals. The question of a quarantine deeply interests also the Persian and Turkish pilgrims. The former, after visiting the Islam, sacred tombs of Mersched and Kerbellen, on the Persian-Ottoman frontiers, proceed by land to those of Mecca and Medina; and the latter travel hence (at least many do) through Asia Minor to Damascus, and thence to the holy cities just named. If the epidemic be introduced into Persia from India, or by the Persian gulf, it may be carried overland into the Hedjaz: but it will, most probably, be taken direct by sea to the ports of the Red Sea.

"The French have also a large number of pilgrims from Algeria visiting the Hedjaz through Egypt, and the works on the Suez Canal might be seriously retarded by the reappearance of the cholera in Egypt, and hence the conflicting reports of the French and English despatches.

"The small commission sent some months ago by the Porte direct to the Hedjaz for the purpose of ascertaining whether or not the remains of the sacrifices are there left exposed to the sun or concealed beneath the soil has reported in the latter sense. This is believed and just proven by the English deputation as a fact, but none others believe in its truthfulness."

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HOSPITALS FOR THE INSANE.

THE question of distance and nearness, as they respectively influence the use of hospitals for the relief of insanity, is well put in an able and convincing paper, by Dr. Edward Jarvis of Massachusetts, in the *American Journal of Insanity*. The discussion was suggested, evidently, by the recent legislative action of New York, establishing a second State Hospital to be devoted to the incurably insane, and, like the institution at Utica, to be centrally located. These benevolent retreats are opened alike for all the people of the State. Yet the result is that distance is, to a large extent, actual exclusion from their benefits, so that every state hospital becomes, in some measure, a local institution. This, indeed, is what we might expect. "No liberality of admission, no excellence of management, no power of reputation, can entirely overcome the obstacles of distance and expense, the difficulty of transporting lunatics, or the objection of friends to sending their insane relatives far from home, and beyond the reach of ready communication."

To show that this probable result is the actual result, and that it follows with the certainty of a universal law, is the object of Dr. Jarvis's essay. He has subjected the question to the test of statistical accuracy and of mathematical exactness. To show, for instance, the actual operation in New York, he divides the whole State into four districts. Oneida county, which holds the great asylum, is number one. Number two contains eleven counties, mostly within sixty miles of Utica. The third district includes seventeen counties, which are from sixty to one hundred and twenty miles distant. The fourth district is composed of all the remaining counties, which are from one hundred and twenty to three hundred and fifty miles from Utica, excepting New York and Kings, which have hospitals of their own. The asylum at Utica has been in operation twenty-three years. The number of patients sent to it from each of the districts has been ascertained. The annual population of each district during the period has been carefully determined. Then, dividing the sum of the annual populations for twenty-three years by the number of patients sent in that time, we get the proportion of patients to population. Here is the result.

No. I. (Oneida Co.),	one	patient	out	of	2.772
" II.	one	"	"	"	5.820
" III.	one	"	"	"	7.351
" IV.	one	"	"	"	11.535

In other words, and in round numbers, we may say with sufficient nearness, that while Oneida (number one) sends *four* patients to the asylum, number two sends *three*, number three sends *one and a half*, and number four only *one*. Of course, there is not a shadow of reason for supposing that those districts which send the most patients to the asylum, have any larger proportion of insanity than those which make less use of its advantages.

To show that this is not an accident or peculiarity of our State alone, but that it is a necessary law of nature or humanity, Dr. Jarvis gives the result of similar inquiries into the hospital records of other States. Twenty-two States and two of the British Provinces are included in these calculations and statements. The investigation, which must have involved great labor and minute calculation, exhibits in all these States, a condition of things very similar to what has already been stated in regard to New York.

In some of the States referred to, the disadvantage of remoteness has been in part removed by the creation of additional hospitals. Massachusetts, for instance, though small in extent, when compared with many other States of the Union, has three public hospitals for her insane, besides the large and well endowed institution at Somerville.

The inference and the lesson which we should draw from these facts, are as clear as anything can be. We have some ground for believing that the community are awaking to a sense of what they owe to the insane. The late action of the New York legislature in regard to a hospital for the insane, to be placed somewhere on the Hudson, is full of hope and promise. That it will result in the establishment of a valuable and highly useful institution, we do not permit ourselves to doubt.

Under this act, commissioners are to be appointed who will locate the hospital. They may receive proffers of land and of material aid, and have power to contract for a suitable site. They are to make report of their doings to the legislature within ten days from the opening of the next session. Facts already stated show beyond a question, that the vast population of eastern and southern New York have a direct and most important interest in the successful prosecution of this enterprise. It will be strange indeed if it fails to receive hearty welcome and cheerful coöperation. We shall await with no common interest the appointment and the action of the commission. Meanwhile, we commend the object to the earnest consideration and efficient aid of all who may feel that they are directly or indirectly interested in its accomplishment.

The bill as originally brought before the Senate, giving extraordinary power to the Secretaries of War, the Navy, and the Treasury, "to prevent the introduction of the cholera into the United States," finally passed both houses of Congress in the following modified form:

"*Resolved, By the Senate and House of Representatives of the United States of America in Congress assembled*, That the Secretary of the Treasury hereby is authorized to make and carry into effect such orders and regulations of quarantine as in his opinion may be deemed necessary and proper, in aid of State or municipal authorities, to guard against the introduction of the cholera into the ports of the United States; and the Secretary of the Treasury is further authorized to direct the revenue officers, and officers commanding revenue cutters, to aid in the execution of such quarantine and health laws as may seem necessary."

This bill having received the signature of the President, has already become a law, but its exceedingly mild provisions and the merely discretionary power with which it invests a government official, will not, in all probability, give it any more force than "a paper blockade." Furthermore, just previous to its passage, an amendment was agreed to as follows:

"*Provided*, That all authority hereby granted, shall expire on the first day of January, 1867."

Reviews.

A Practical Treatise on Urinary and Renal Diseases including Urinary Deposits, illustrated by numerous Cases and Engravings, by William Roberts, M.D., Fellow of the Royal College of Physicians, London; Physician to the Manchester Royal Infirmary; Lecturer on Medicine in the Manchester School of Medicine. Philadelphia: Henry C. Lea, 1866.

The design of this work, by Dr. Roberts, "is to give an account of the organic diseases of the kidney, and of those disorders of which the chief characteristic is an alteration of the urine."

The author divides it up for convenience into three parts. The first, which may be regarded as introductory to the other two, is devoted to the physical and chemical properties of the urine, and to the various alterations which it undergoes in health and disease. In the second part we have the "urinary diseases," which may be severally enumerated, as diabetes insipidus, diabetes mellitus, gravel, calculus, and chylous urine; while the third part treats of "the organic diseases of the kidney," and forms the largest division of the work.

In the first chapter, he presents us with a summary of the properties and composition of the urine, only so far, however, as such is necessary for practical utility, and gives a sufficiently full account of the physiological and pathological alterations in the excretion. The methods of examining the urine are next taken up, and the apparatus required described.

The physical properties of the urine are next presented in Chapter II., and in Chapter III. we have the inorganic deposits treated of, while the consideration of the organic deposits is treated of in Chapter IV.

In the second part of the work treating of urinary diseases, an analysis of all the facts hitherto published in reference to the nature and treatment of the two forms of diabetes, and of chylous urine, etc., is first presented. Then follows the discussion of gravel and calculus. The very full consideration of these latter affections forms the most attractive portion of the whole work. Not only have we a well digested history of these diseases, but the author gives us the results of some original observations in reference to their treatment. He has taken up the solvent treatment for calculi, and re-investigated it. The results of his observations are very gratifying as far as they go, and will tend not a little to popularize the particular kind of treatment which he recommends.

In order to give our readers an idea of the author's views with reference to the utility of the solvent plan of treatment, we must be permitted to follow him step by step in his investigation.

Uric acid being the most common form of calculus, his attention was naturally enough more particularly directed to it, although numerous experiments were instituted with a view of testing the solvent power of certain substances upon the calculi composed of other ingredients. The inquiry respecting uric acid, he says, "set out from two data. *First:* That solutions of alkaline carbonates exercise a solvent action on uric acid. *Second:* That the urine can be rendered alkaline from alkaline carbonates, by the administration of certain salts by the mouth." Starting from these data, a number of questions presented themselves for answer before proceeding further. These questions were: "1. Whether is carbonate of potash or carbonate of soda the better solvent for uric acid? 2. What is the best strength of solution to employ? 3. What is the effect of varying quantities of the solution on the results obtained?" The first question was answered in favor of the solution of the potash. In reference to the second query, the greatest solvent power was found to reside in solutions containing 40 to 60 grains of the carbonate to the imperial pint." The effect of the quantity of solution permitted to flow over the stone, "within the limits necessarily imposed by the capacity of the kidneys to eliminate fluids, proved to be comparatively unimportant." These questions being settled, others in turn came up. It was then found necessary to ascertain, 1. "The best way of alkalizing the urine, so as to impart to it an alkalescence corresponding to that of solutions of carbonate of potash of maximum solvent power," and 2d. "To examine the actual effect of alkalized urine passed over uric acid calculi, in a vial, at blood heat."

The use of the acetate or the citrate of potash in frequently repeated doses was found to be the most convenient method of alkalizing the urine. These salts were well borne by the stomach, and presented nearly equal powers. In order, however, to maintain the urine at a requisite degree of alkalescence, it was found necessary to administer to adults from 40 to 50 grains of one or the other salt in three or four ounces of water every three hours.

After detailing a few illustrative cases, he proceeds to enumerate those in which the solvent treatment is and is not applicable. These may be stated in brief, as follows: "1. The solvent treatment is inapplicable to all cases in which the urine is alkaline. 2. When the urine is acid the case may be regarded, *primâ facie*, as suitable to the solvent treatment."

But to the universal applicability of the treatment to the latter cases, "there are," he says, "numerous limitations. It the first place, all those cases are excluded in which it is known or strongly suspected that the stone is composed of oxalate of lime. 2. In those cases in which there is no indication of the nature of

the stone, we are left in doubt (the urine being acid) whether it is composed of oxalate of lime, or uric acid, or of alternating layers of these two substances. 3. Renal calculi, however, differ essentially in regard to this point from vesical calculi." The former are generally composed of a single substance, uric acid. The latter, if they have sojourned any considerable time in the bladder, are frequently compounded. In cases of renal calculi, he judiciously considers, in view of the preceding facts, that the patient should have the benefit of the doubt, as no other treatment than the alkaline is open to the choice of the practitioner. If by a chance the calculus should be one of oxalate of lime, the treatment of it does no good, but does not aggravate the case. 4. "In cases of vesical calculi," he continues, "the question stands differently. The solvent treatment comes here into competition with the mechanical methods of lithotomy and lithotrity, which long experience has stamped with success. It is no longer a question of the mere possibility of removing a calculus by means of solvents, but of doing it with less risk than by lithotomy and lithotrity." And further on he says, "Probably the most advantageous course to follow, if the stone be small, would be to try the solvent treatment for a limited period—for six weeks or two months—and if unsuccessful at the end of that time, to proceed without further delay to operation."

In summing up the cases to which the solvent treatment for vesical calculi is applicable, he necessarily makes the number small, and only promises success in those in which "the urine is acid; the stone not large; its composition known to be uric acid, or strongly suspected to be such."

The frankness with which he makes his statements in reference to the solvent treatment, shows him to be an unprejudiced observer, and one whose opinions and assertions are entitled to respect.

It is very much to be regretted that the range of applicability of the solvent treatment is not more extended, but still more so is it to be deplored that the rules which are to be observed in carrying out the treatment, even in this limited number of cases, are, by virtue of their stringency, so difficult of observance. He insists, for instance, that the urine must be maintained in a continuous state of alkalescence, and that this can only be effected by dosing the patient "at intervals of not less than three hours," during all the waking hours, and every time he may wake during the night to empty his bladder.

The only hope which this system of medication has for itself is in the desperation which drives the particular class of patients who suffer from calculi, to adopt any means that may promise them relief.

The salts recommended for administration as the best, are the acetate and citrate of potash. Of the former, the dose for an adult should be from 40 to 60 grains, dissolved in three or four ounces of water; and for children, the dose should range from 20 to 30 grains.

On page 257 he refers to the objections which have been urged against the alkaline treatment. The first objection, viz. the danger of the precipitation of the phosphates on the surface of the stone, he answers by affirming that if there be an ammoniacal decomposition of the urine the phosphates are deposited, whether alkaline medicines be given or not; but if the urine be alkaline solely from fixed alkali, not a *particle of phosphate deposit takes place.* The second objection, that the urine being naturally acid, any effort to induce a continuous alkalinity must have a deleterious effect upon the general health, he does away with, by a reference to the fact long recognised, that the secretion is nominally alkaline (from fixed alkali) for several hours daily after meals. And third, in regard to the impairment of the digestion which the administration of alkalies is said to induce, he proves that, so far as the acetates and citrates are concerned, there is no foundation for such a supposition.

The solvent treatment of vesical calculi holds out no prospect of any useful application; and our author leads us to the same conclusion with reference to oxalate of lime calculi, either in the bladder or beyond it.

As regards phosphatic calculi, there is, according to Dr. Roberts' assertions, strong foundation for a hope that the injection into the bladder of a weak acid solution may be attended with gratifying results. This, however, is the only course left us in the medical treatment of these calculi, inasmuch as acids cannot be made to pass through the kidneys save in insignificant proportions. The whole subject of calculous disease is very well treated, and the prominence which has been given to the medical treatment of this class of diseases is, it seems to us, warrantable under the circumstances. Although the treatment does not offer a very flattering promise of success, and is necessarily limited to a very small class of cases, it nevertheless sufficiently commends itself to the attention of the profession to induce a trial of the author's method.

The organic diseases of the kidney are severally considered in the third part of the work. Bright's disease receives some considerable attention, but is by no means treated of exhaustively. An excuse for this is to be found in the author's conviction, as stated in the preface, "that the present moment is not favorable for a lucid description of Bright's disease and its allies." The disease, however, is fully and intelligibly enough treated of to repay perusal.

The less frequent affections of the kidney claim rather extended notice, and this, considering the poverty of English literature upon the several subjects, is quite desirable. These diseases we cannot refer to more than by name. They are: hydronephrosis, cystic degeneration, cancerous and tuberculous affections, and parasitic diseases.

The last chapter, on the anomalies of position, form, and number of the kidneys, is made very interesting.

The attention which the study of urinary diseases is receiving, will insure for such a work as the one by Dr. Roberts, a welcome reception. We can confidently commend it to the profession as a reliable, interesting, and instructive work.

It is well printed, and the illustrations, of which there is a goodly number, are capitally executed.

DIARRHŒA AND CHOLERA: their Origin, Proximate Cause, and Cure, through the Agency of the Nervous System, by means of Ice; by JOHN CHAPMAN, M.D., M.R.C.P., etc. Reprinted, with additions, from the *Medical Times and Gazette* of July 29, 1865. Philadelphia: J. B. Lippincott & Co., 1866. 12mo. pp. 57.

The theory advanced in this pamphlet is, that the ultimate causes of diarrhœa and cholera produce their effects by inducing a hyperæmia of those nervous centres which preside over the bowels. These are notably the superior and inferior mesenteric plexuses. It has been demonstrated by Brown-Séquard and other physiologists, that the sympathetic regulates the contraction of bloodvessels, and that the vitality of the branches of this nerve depends upon the amount of blood in the ganglia. When the ganglia are hyperæmic, the filaments are stimulated, and cause contraction in the muscular coats of the bloodvessels. "The bloodvessels nourishing the tube, receive a larger supply of nervous influence from

the vaso-motor nerve centres than before, and hence, contracting more vigorously than natural, cut off to a proportionate extent the supply of blood to, and consequently the nourishment of the intestinal walls. The bowels thus lose their wonted robustness, and so become like a delicate lady with very little blood in her system, 'highly nervous,' and susceptible of being excited and thrown into excessive or convulsive activity by a stimulus which, in their healthy condition, would but slightly affect them."

Hence, considering it as established that there is this hyperæmic condition of the ganglia in cholera and diarrhœa, Dr. Chapman proposes to lessen the amount of blood in them by the application of ice along the spine. He says: "As a matter of fact, it is possible to lessen the amount of blood in nervous segments along the back, at a considerable distance above or below these particular segments over which ice is applied. It is indeed a physiological fact, so regular in its recurrence that it may be denominated a law, that when one nervous segment is rendered either anæmic or hyperæmic, the adjoining one will assume a like condition, though in a less degree, while those further removed will, in proportion to their nearness, also participate in the state impressed on the one first affected.

Of course it will not be assumed that the application of ice along the spine is a novel method: but it has been systematized by Dr. Chapman, and a reason based on physiological discoveries assigned for the treatment. Experiments already made in cases of epilepsy, seasickness, and some spinal affections, as well as in diarrhœa and cholera, have been satisfactory enough to warrant a continued trial of the vaso-motor therapeutics, although it has not as yet received the warm endorsement accorded to it by its author. Nor would the profession be willing at present to regard it as more than an adjuvant to other remedies in cholera.

Space and time forbid the present discussion of the views entertained by Dr. Chapman as to the cause and contagiousness of cholera, and these are also independent of the treatment advocated. Opium is quite warmly denounced in the conclusion of the work, but apparently without a thorough appreciation of the fact that this drug, in small doses, is an entirely different agent from the same medicine in larger ones.

This work will amply repay perusal, and suggest much interesting matter for reflection. It cannot, however, but be regretted that any obstacle to the general use of the ice-bag should be caused by the patenting of an apparatus which is regarded by its inventor as a great boon to the sick.

Progress of Medical Science.

Local Anæsthesia by Ether Spray.—Dr. Greenhalgh, of London, lately performed a Cæsarean section, assisted by Dr. B. W. Richardson, the inventor of local anæsthesia by means of ether spray, who used the anæsthetic apparatus. No pain was experienced by the patient during all the incisions, the child was delivered, but lived but a short time. The mother, however, did perfectly well, making a speedy and good recovery.

Ovariotomy has been performed twice after local insensibility was produced by the ether spray, once by Mr. Spencer Wells, of London, and once by Mr. Braddon, of Manchester.

The anæsthetic method has also been successfully used by Dr. Thorbun, of Manchester, for the operation of femoral hernia.—*London Medical Times and Gazette, April 7 and* 28, 1866.

We may add that Dr. Richardson's apparatus is in successful use in New York. We saw it used in two cases at Professor Gouley's clinic in the University Medical College. The cases were tumors of the scalp.

Vesico-Vaginal Fistula.—A writer in the *Hannover Zeitschrift für pratische Heilkunde*, who has been visiting the hospital at *Rostock*, and especially the division of it under the care of Professor *Simon*, in speaking of the skill and success of the latter in his operations for vesico-vaginal fistula, says:—"Simon has up to this time operated on about seventy vesico-vaginal fistulæ, a number which before and contemporaneous with him, no operator has reached (?), and has attained results which by far exceed those of the Frenchman *Jobert*, and the American *Sims*. Of forty-three fistulæ occurring in forty women operated upon by Simon up to 1862 and published, thirty-five were perfectly cured, five almost perfectly, only one remained unrelieved, and two died. The result of the last two and a half years, which comprehends more than thirty operations for fistula, and which will soon be published, shows a much more favorable experience, so that of all those operated upon, which now amount to more than seventy, only two remain unrelieved, while two have died. * * It is not too much to say that *Simon* restores continence of urine, in every defect of the vesico-vaginal wall, including the defects of the uterus and of the recto-vaginal wall, when only a piece of healthy urethra remains, which is from two and a half to three centimetres long."

Local Anæsthesia: A New Agent.—M. Delcominète, Professor at Nancy, claims that the power of sulphuret of carbon in producing local anæsthesia, is much greater than that of any other substance now used for this purpose. The refrigeration is more complete than with ether, and is obtained in less than a minute. The only objection to the general use of this compound is its intolerably offensive odor.

Trichina in American Pork.—The committee appointed by the Chicago Academy of Science, to examine into the facts concerning the supposed existence of trichina in our pork, have presented a very elaborate report upon the subject. Portions of muscle of 1,394 hogs, taken from the different-packing houses and butcher stalls of Chicago, were submitted to careful microscopical examinations, and twenty-eight trichinous specimens were found. The committee conclude that in the hogs brought to Chicago, one in fifty is affected with the disease in a greater or less degree, which indicates with little doubt the startling fact that trichiniasis in pork is even more common in this country than in Germany. But notwithstanding this fact, there is conceded to be very little danger of the disease spreading in this country, as Americans are in the habit of thoroughly cooking the pork before it is eaten. 160° Fahr. is a heat said to be sufficient to destroy the worms. "Again," says the committee, "by properly salting and smoking the meat for at least ten days, the trichina, should they exist, will certainly be killed." Simple desiccation of the meat, if continued for a period of sufficient length, will also kill them. *They will never be found alive* in old hams for instance (!). On the other hand, mere pickling appears to have very little effect upon these worms. They contend that a strict attention to the feeding of hogs and their confinement in pens where no animal food is accessible, is an infallible preventive against trichiniasis in them. They also endorse the European authorities in reference to the disease, that it is impossible to diagnosticate it from external appearances.

Novel Treatment for Gonorrhœa and Gleet.—Mr. Henry Thompson, at the University College Hospital, has lately been employing a new method of treatment for gonorrhœa and gleet. Believing that the imperfect action of injections depended upon the very short time that they are in contact with the mucous membrane, Mr. Thompson conceived the idea of applying the astringent in such a form as would enable it to remain for a much longer period in contact with the inflamed surface. Acting upon this conception, he caused "soluble bougies" to be made of cocoa butter, and of two or three inches in length. These bougies contained the drug that was to be applied to the part "They are cast in moulds, are perfectly firm and smooth, and may be used in any length; but that named has been deemed the best. A soluble bougie is equal in size to about No. 8 or 9 of the catheter scale, and may be introduced, having been previously oiled, by the patient himself, into the urethra, where the material gradually melts in the space of ten minutes. The patient is directed to slip one of these bougies into the passage before going to bed." Mr. T. has adopted the following method for retaining the bougie *in situ*. "A piece of adhesive plaster is cut nearly an inch wide and five inches long. A piece of Taylor's stout lint, of the same size, is rolled up into a little pad and laid on the centre of the plaster, which is warmed and applied along the lower surface of the dorsum of the penis, the prepuce, meanwhile, being fully retracted. A second strip of plaster, half the width of the first, is then put closely around the glans penis transversely. The bougies are made to contain either a quarter of a grain of nitrate of silver, a grain of tannin, two-thirds of a grain of acetate of lead, or ten grains of nitrate of bismuth, as astringents; while others are sedative also, and contain two grains of opium or two of belladonna. Other materials can of course be employed." By this method, Mr. Thompson is satisfied that the remedial agent will remain in contact with the diseased parts for several hours at a time; and is moreover necessarily squeezed into the lacunæ. Assuming the supposition that these lacunæ are harboring the discharge and escaping treatment at the same time, to be a correct one, this method would seem to be the only one to be implicitly relied upon. At all events, every surgeon must be ready to admit that Mr. Thompson's plan promises better results than can be obtained from transitory injections.—*Lancet.*

New Theory of Diabetes.—M. Mialhe, in a paper recently read before the Academy of Medicine at Paris upon diabetes, advances the opinion that "the disease is a chronic-nervous complaint involving all the nerves engaged in regulating the secretions."

Ligature of External Iliac Artery for Inguinal Aneurism—Recovery.—Mr. J. Wright Baker (*Lancet*) operated during the month of June, 1865, upon a male patient twenty-four years of age, for aneurism in the groin, caused by a scrofulous abscess in that locality, ulcerating its way into the coats of the artery above Poupart's ligament. The patient made a good recovery, the ligature coming away twenty days after the operation.

Elephantiasis of the Clitoris.—Dr. H. M. Lyman (*Chicago Medical Journal*, May, 1866) exhibited to the Chicago Medical Society a specimen of elephantiasis of the clitoris, removed by Dr. McClure from a patient at the almshouse. The patient was twenty-five years of age, the mother of several children, and had suffered from constitutional syphilis. The clitoris commenced to enlarge about three years previous to the time of its removal. It formed a pendulous bifid tumor, dangling between the thighs, and reaching half way down to the knees. Its surface was nodulated, and was ulcerated at several points, exuding a most offensive discharge. The tumor was easily removed by amputation, after the application of a whip-cord ligature around its pedicle. The stump cicatrized in eight days after the operation. Microscopical examination showed fibrous and connective tissue as the principal elements of the mass.

The Baneful Effects of Nicotine prevented.—M. Melsens has found that tobaccos, from various countries, contain nicotine in very different proportions. In tobacco from some parts of France (*e. g.* the department of the Lot) there is 7·96 per cent. of nicotine; whilst Havannah tobacco contains only 2 per cent. He proposes to smokers a way of preserving them from the effects of the alkaloid, and advises them to put into the tube of the pipe or cigar-holder a little ball of cotton, impregnated with citric and tannic acids. As the smoke passes through the cotton, it will deposit the nicotine therein, in the shape of tannate and citrate. M. Melsens has made very ingenious experiments, which go a very great way to prove that he is perfectly correct.—*Lancet.*

Ligature of the Primitive Iliac for Traumatic Aneurism.—Prof. Ralph N. Isham, of the Chicago Medical College, gives an account of a case (*Chicago Medical Journal*, April, 1866,) of wound of the anterior trunk of the internal iliac within the sacro-ischiatic notch, for which he ligated the primitive iliac. The patient, a private in the 35th Wisconsin Volunteers, aged twenty-five, received a bayonet wound of the right buttock through the ischiatic notch, March 18, 1864. He bled to the extent of sixteen or twenty ounces, immediately after which there occurred a great swelling of the abdomen and right buttock. He was kept under treatment at Camp Washburn two months, when the swelling decreased and he began to walk. On the 12th day of July he was reported fit for duty, but when he arrived at his regiment the tumor rapidly returned, with much pain, and he was hardly able to walk at all, even with a cane. The swelling continuing to increase he was, two days after, sent to the hospital at New Orleans, shortly after which, not improving, he was furloughed and sent North. While on the boat thither the surgeon opened the tumor, mistaking it for an abscess, but finding that it gave exit only to blood, closed the opening immediately. Oozing took place from the wound after this, and the patient arrived at Chicago in an exceedingly debilitated condition. On admission, he was suffering great pain, referred to the tumor and the right leg. He was very anæmic. On inspection of the parts, there was a hard, tense, red and glistening tumor occupying the right nates, extending from the crest of the ileum to the natal fold, and from the right border of the os sacrum to and over the anterior spinous process of the ileum. The cicatrix of the original wound was nearly in its centre, and beside it was the recent wound made by the surgeon, dilated to the size of half a dollar, and filled with clots of blood through which (October 2) arterial blood, for the first time since admission, escaped. A bruit was heard by applying the ear over the tumor, but no pulsation could be detected. On the occurrence of the hemorrhage (October 2), an injection of perchloride of iron into the sac was made. This temporarily arrested the bleeding. In the course of the next three or four days hemorrhage again occurred, notwithstanding repeated injections. It was then decided (October 7) to perform

the operation of tying the common iliac artery. The operation was performed, in the usual way, by Prof. Isham. The patient did well thereafter until the 10th, three days after the ligation, when an offensive discharge began to show itself from the wound in the sac—the result of a gangrenous condition of that part. The patient continued gradually to sink from this time, and died in the course of twenty-four hours after. The post-mortem examination showed a healthy condition of the artery—a well organized clot extending from ligature to aorta. The enormous sac was gangrenous, which condition was accounted for in its size, the pressure and irritation to which it was subjected during the long journey from New Orleans, and the breaking up with decomposition of the clots instead of fibrinous consolidation. Prof. Isham's case is the thirty-fifth recorded one of ligature of this artery. Of the whole number thus far reported, only seven have recovered. Fourteen of these thirty-five were operated upon for the arrest of hemorrhage in wounds, Prof. Isham's being one of this number, and only one recovered.

Nature and Disease.—In the course of a very able address on Tuesday (May 1), to the students of St. Mary's Hospital, at the summer distribution of prizes on the Relations of Physical Science to Medical Study, Prof. Huxley referred with a touch of keen humor to the old and trenchant satire which described Nature and Disease as two combatants fighting over the sick man, and the physician as a blind man who advanced with a club to settle the contest between them, and dealt heavy blows which might sometimes fell the one and sometimes the other, as chance directed. If this ever had been true, he said that it was assuredly not applicable to the practice of medicine in this day. But he ventured to change the metaphor into a form which made it better adapted to the present state of medical practice. The physician, he said, could no longer be typified as the blind man—he must be shown as a man keen-sighted, wary, and well armed; but the combatants were fighting in the twilight—a twilight so obscure, so variable and so deceptive, that he was fain to hold his hand to refrain as much as possible from striking, lest he deal a mischievous blow where he least intended, and rather to play the part of the "judicious bottle-holder"—to stand by to help exhausted nature, and assist in bringing her "up to time." No doubt Prof. Huxley had in mind the brandy-bottle, which is unquestionably one important resource of the restorative and expectant school of medicine.—*Lancet.*

Symptoms of Trichiniasis.—Dr. Herman Keifer, of Detroit, in a well written article on the Trichina Spiralis, in the *Detroit Review* of Medicine and Pharmacy, for May, 1866, in referring to the sufferings of patients with trichiniasis, quotes the following graphic description from Dr. Kraatz —"Imagine in a small room, twenty or thirty men lying sick; notwithstanding that number, the silence of the grave existing, for neither do the patients complain nor move themselves; there they lie, as living corpses, and with widely opened eyes those pale faces, without expression, gaze at us. These miserable creatures not only live, but have the full use of their faculties, without being able to speak, from paralysis of the larynx. They suffer indescribable pains in all their limbs, but must, of necessity, lie motionless, as every movement of a muscle increases their agony. They long for water, and suffer from hunger, but every swallow of liquid or morsel of food is embittered by the increased suffering the motion of mastication or deglutition involves. So they seek oblivion and ease in sleep; but even this sweet restorer is denied them; many of the patients had not shut their eyes for a fortnight. What were the miseries of Tantalus compared to these?"

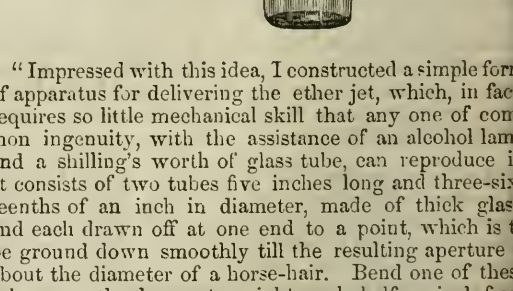
Duration of the Electric Spark.—Professor Wheatstone has decided that the duration of the electric spark does not exceed the twenty-five-thousandth part of a second. A cannon ball would appear stationary in its flight if illuminated by the spark, and the wing of an insect that moves ten thousand times a second would seem at rest.

New Instruments.

A SIMPLE NEBULIZER.

Dr. Jos. G. Richardson, of Union Springs, Cayuga Co., N. Y., thus remarks upon a simple form of nebulizer, a wood-cut of which we give below:

"The general employment of subcutaneous injections, invaluable as they are for the relief of certain cases of neuralgia, and some other agonizing affections, has been heretofore so greatly obstructed by the fact that a majority of patients, especially females, entertain an invincible dread of the pain inflicted by making the necessary puncture; that on reading the description of Dr. B. W. Richardson's method for producing local anæsthesia by a jet of nebulized ether, it appeared to me that his ingenious invention was doubly useful as affording a means of entirely obviating this difficulty, and of rendering the administration of opiates, etc., by the hypodermic mode as free from discomfort, and certainly less disagreeable than by any other avenue for their introduction into the system."



"Impressed with this idea, I constructed a simple form of apparatus for delivering the ether jet, which, in fact, requires so little mechanical skill that any one of common ingenuity, with the assistance of an alcohol lamp and a shilling's worth of glass tube, can reproduce it. It consists of two tubes five inches long and three-sixteenths of an inch in diameter, made of thick glass, and each drawn off at one end to a point, which is to be ground down smoothly till the resulting aperture is about the diameter of a horse-hair. Bend one of these tubes over the lamp at a right-angle half an inch from its small extremity, and again at its middle in an opposite direction to the same extent; then attach both tubes to a grooved cork so that the capillary opening of the bent or lower shall be opposite to the central perforation of the upper straight one, and having adjusted these so that they are found to work properly, cement them firmly in that position by the aid of sealing-wax. The lower end of the first tube dips to the bottom of a half-ounce bottle filled with ether, and suspended by an elastic cord from the horizontal tube, whose larger extremity is attached by a perforated cork to the nozz

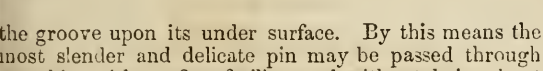
zle of a common rubber syringe, which forms an efficient substitute for the elastic ball of the regular apparatus. This instrument performs better if the lower termination of the first tube is supplied with a minute valve, perhaps most conveniently arranged by dropping a No. 6 shot into it, drawing off to a point and then grinding this down until its calibre is nearly, but not quite, sufficient to allow the little bullet to fall out.

"After repeated experiments with the apparatus upon my own arm and my friend Dr. Pary's, the point selected being the usual one below the deltoid's insertion, I can state that the application of this jet (interrupted as it of course is) for fifteen seconds decidedly diminished the twinge of making the hypodermic puncture; when continued for thirty seconds, the tissues made but slight complaint of the needle's passage; and after a nebulization lasting forty-five seconds, no pain whatever was perceptible during the operation.

PROF. A. C. POST'S NEEDLE DIRECTOR.

This instrument is designed to facilitate the introduction of insect pins for sutures in wounds of the face, and of other parts where it is important to secure an accurate adaptation of the edges of the wound.

It consists of a needle two inches and a quarter in length, of a diameter corresponding with that of a very large darning-needle, straight except at the point, where it is slightly curved to the extent of a quarter of an inch, and having a small flat handle at its proximal extremity. The curved portion of the needle is flattened, and has cutting edges. Throughout the greater part of its length the needle has a groove on the side corresponding with the convexity of its curve. In using the instrument, the needle is passed through the edges of the wound in the position which is to be occupied by the pin, and the pin is then slipped along



the groove upon its under surface. By this means the most slender and delicate pin may be passed through the skin with perfect facility, and without being bent out of shape. As soon as the pin is introduced, the needle is withdrawn, and the pin is secured by a thread in the form of the figure of 8, and the point of the pin is removed by cutting-pliers. The description will be rendered more intelligible by the above wood-cut.

Death from Chloroform.—An instance of this has lately occurred in the southern part of the city of Philadelphia. It appears from the evidence at the inquest, that the chloroform was given at the request of the patient to produce anæsthesia during the extraction of a tooth, she stating that she had previously taken it without injurious effects. In a minute or two after inhaling the vapor she turned deadly pale, went into convulsions, and soon died. The chloroform seems to have been pure, as the dentist testified that he had given a larger inhalation of the same to a child on the same day. On *post-mortem* examination all the organs were found perfectly healthy.—*Medical News and Library.*

Correspondence.

"THE CHOLERA CAMPAIGN."

To the Editor of the Medical Record.

Sir—In view of the possible reappearance of the cholera in this country during the coming summer, anything bearing on the history of the disease at the time of its previous visitations becomes a matter of general interest. I therefore venture to send you an account of the disease as it appeared on the U. S. transport steamer *Henry Clay*, on Lake Erie, in the summer of 1832. It is taken from the journal of a distinguished officer of the army—at that time a First-Lieutenant in the Fourth U. S. Artillery—who was on board the steamer. It is interesting, as being among the first of the cases that ever occurred in this country.

The troops on board had left New York on the 20th of June four days before the breaking out of the disease in that city; and although it had appeared in Montreal on the 8th of that month, it had not extended southward, and there were no cases in Buffalo as early as the 2d of July, when the troops left there. The disease broke out in the steamer when in the middle of Lake Erie, opposite the town of Erie, in Pennsylvania. The command on board numbered fourteen officers and about four hundred men. The first case that occurred is thus described by the officer writing the journal. He says: "He had violent spasms of the arms and legs; his eyes had a peculiar glassy and fixed appearance; his features were sunken, and he appeared to be a great sufferer." All the early cases proved fatal; in fact, none recovered until they were removed from the steamer to a clean airy camp, near Fort Gratiot, in Michigan. So fatal was the disease, that the expedition was entirely broken up, and obliged to return; and it has ever since been designated in the army as the "*Cholera Campaign.*" In every case it was noted that men who indulged freely in intoxicating liquors to drown their fear, took the disease and died.

The account which follows was written by a non-professional man, in his private journal, and does not consequently contain those items which would be more interesting to a physician. On another page of the journal he makes, however, a shrewd suggestion in regard to the origin of the disease. "It was long a matter of astonishment to me," he remarks, "how the disease could possibly have got amongst us—but my doubts on that subject are at an end. I am fully convinced that the disease is carried through the air, and that in going from Buffalo to Detroit we passed through a column of the infected air." It would be interesting in this connexion to know on what day the disease made its appearance at Erie and other towns in northern Pennsylvania.

Yours, &c.,

Harvey E. Brown,
Assistant-Surgeon U. S. Army.

Extracts from the Journal of an Army Officer, written during the Prevalence of the Cholera on the Steamer Henry Clay, on Lake Erie, in July, 1832.

"In 1832, through the machinations of the celebrated Indian Chief, Black Hawk, the Sacs and Fox tribes of Indians became hostile to the whites, and troops were ordered into their country to suppress them. General Scott had the chief command. A large portion of the Fourth Artillery was ordered on this duty, and with hardly a day's notice I was directed to proceed to Fort Columbus, assume command of Company H, and pro-

ceed with it to the Mississippi River (Black Rock) near the Lakes and Chicago. The companies of our regiment were placed under the command of Major M. M. Payne, a good and efficient officer. Caring for my wife and our little ones in our humble little cottage, I proceeded with our command up the North River and on the Erie Canal. At this time, although no case of cholera had been in the States, yet as it had reached Canada, great apprehensions prevailed. We were at almost every town subject to quarantine inspection, but not one individual of us had ever seen a case of cholera. We therefore arrived at Buffalo, and embarked from thence, on the 3d of July, on board the steamer *Henry Clay*, our command consisting of, I think, four companies of the Fourth Artillery, and some two hundred recruits, and about ten or fifteen young gentlemen just graduated at West Point, who were going to flesh their maiden swords against the Indians. We proceeded without incident until we had left Erie on the 4th of July; and in the evening, while the younger officers were gaily celebrating the day, and the others sitting or lounging listlessly around, a man came and reported that one of the men on deck was ill, and very strangely attacked (let it be remembered that not one of our command had ever seen the Asiatic cholera, or been where it prevailed). We went on deck, and found him to be very sick, with a strange expression of the eyes and features, with which we were afterwards but too familiar. The doctor pronounced it cholera; the man died before we reached Detroit, as did another. Arriving there, we were visited by the Health Officers, and the opinion of our surgeon confirmed. An additional surgeon was ordered on board; poor fellow, he was so alarmed that previously to coming he made his will. We landed some citizen passengers who were on the boat (several of whom, as we afterwards learned, died, and they spread the disease far and wide throughout Michigan), and were ordered to proceed up the river three or four miles to Hog Island, and there await further orders. By this time several more cases occurred. That evening General Scott passed us on his way to Chicago, hailed and ordered us to follow him to that post. We did so, but before we had reached Fort Gratiot, at the month of the river, and on the borders of Lake Michigan, our decks were literally covered with the dead and dying, and so many of the crew were either sick or dead that the vessel could not proceed, and we had from necessity to land. We did so, and encamped on a point of land about a mile from the fort, and immediately put all hands capable of working to erecting tents and huts for the sick. Before we had finished, a heavy rain came on which made the disease much more virulent; the young graduates were permitted to leave, and the recruits, almost to a man, deserted. We procured a large barn for a hospital, which was soon filled. Doctor Everett was taken sick and died; and Lieut. Clay, a gallant young officer, also fell a victim, and our poor soldiers died off by the dozen. In one or more instances I was awakened before reveillé to bury men who were at tattoo roll-call, so rapid was the progress of the disease. We had a young surgeon Ker, full of talent and zeal, who devoted himself night and day to the sick, and it is wonderful how he endured even the want of sleep and physical exhaustion to which he was so long exposed. A young sergeant, named Lenison, also is worthy of being remembered; he volunteered as steward of the hospital, and continued assiduously to nurse and attend the sick and dying the whole time, and he never had the disease.

"To give some faint idea of the awfulness of the disease, and of the panic that seized a portion of our command, I will relate a circumstance that occurred to me. I was directed to send two men as nurses to the hospital; I gave the necessary orders to have the men detailed, which being done, they came to me and begged that I must not send them to the hospital, as it would be their death. I told them I was very sorry, but that it was necessary the sick should be nursed; that they were the first on the roster for duty, and that they must go. They showed great reluctance, and finally so far refused to go that I had to take my sword and actually drive them to the hospital. That same night both deserted. The next day both returned with horror expressed in their features, and begged I would pardon them, stating that they would a thousand times rather go to the hospital than witness the horrid scenes of the road they had passed over. They said the road was literally strewed with the dead and dying men who had deserted to escape the disease, and that they saw hogs eating not only dead bodies, but in one or two instances those that had yet life in them.

A few days after our landing, the troops evacuated the fort, and we moved in. Several of our officers were sick, and two or three, to their shame be it said, so frightened as to report sick and to remain in their quarters during the whole time of the raging of the disease. This made duty come very hard on the others, and more particularly as *all* were more or less under the influence of the disease and weakened in strength, but kept up by excitement and a sense of duty. I have seen six or eight dead bodies lying at one time at the hospital waiting for burial. A singular fact in connexion with the disease is, that every baker and every man working in the bakehouse had the disease, and several of them died. Colonel Twiggs and Major Payne (first and second in command) both had the disease, but both recovered. The disease lasted two or three weeks, during which time we lost by death and desertion two-thirds of our command. I lost one-third of my company by death. I was, in addition to my duties as commander of a company, Quartermaster and Assistant Commissary of Subsistence, and was so busy from morning till night that I had no time to think about getting sick; but I had, as all had, the premonitory symptoms—constant diarrhœa and pains in the joints. I resorted freely to the bath, and have no doubt but it was beneficial."

CHOLERA IN 1832.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—Your correspondent "E" asks: "Can any of the brethren familiar with the epidemic of 1832, testify to what extent physicians abandoned their posts, and fled to the country?" as stated in the reminiscences of a venerable clergyman.

Having been one of the physicians of the City Dispensary during the prevalence of the epidemic of that year, I may state unhesitatingly that the assertion above quoted is a slander upon our noble profession. With the exception of the family physician of the venerable man, I cannot call to mind any other physician who abandoned his post and fled to the country. Dr. A. W. Ives (the physician alluded to), was for a short time in charge of the Cholera Hospital in the Park, but being in declining health, and of a very nervous temperament, he was obliged to resign his office, and retire to the country to recruit his strength. He died of malignant chronic disease in 1836. I have not the official records of that epidemic for reference, but I well know that several medical men fell victims to their devotion in the cause of suffering humanity.

The reverend gentleman probably forgets, that on the

first appearance of the epidemic cholera in 1849 he embarked for Europe, and was absent from his charge about two months, his church being closed, and his flock scattered. During the first epidemic, he remained at his post, like a good shepherd, but during the second who cared for the sheep?

FIAT JUSTITIA.

Obituary.

PROF. JOSEPH MATHER SMITH, M.D.

PROF. OF MATERIA MEDICA AND CLINICAL MEDICINE IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

THIS eminent gentleman, whose lamented decease we are called upon to announce, was born at New Rochelle, Westchester County, N. Y., March 14, 1789. His father, Dr. Matson Smith, was a distinguished physician of that place, and his mother, a Miss Mather, one of a New England family long distinguished for preëminence in medicine and divinity.

At the age of fifteen, Dr. Smith removed to New York, and engaged in mercantile pursuits, but having no taste for such occupations, returned to New Rochelle in 1808, and commenced the study of medicine in his father's office. He attended the Medical Lectures in Columbia College during the session of 1809 and 1810; was licensed to practise Physic and Surgery in May, 1811, by the Medical Society of Westchester County, reading before the Censors, at his examination, a dissertation on "Respiration," and in the same year (1811), settled in this city as a practitioner of medicine in partnership with the late Dr. William Baldwin, an association which continued for several years.

In 1815 he graduated at the College of Physicians and Surgeons, New York. The subject of his thesis was "Phlegmasia Dolens." About the same time he united with several young contemporaries, Mott, De Puy, Bliss, and others, in forming the New York Medico-Physiological Society, and served on the Committee of Publication. Under his supervision, the first volume of its Transactions was published in 1817, to which he contributed a paper on the "Efficacy of Emetics in Spasmodic Diseases, with an Inquiry into the final cause of sympathetic vomiting," which at the time attracted much attention, and is still considered to be ingenious and original. In the same work he published also a case of "Poisoning by Opium, successfully treated by Flagellation." In June, 1820, he was appointed Visiting Physician to the New York State Prison, situated in Greenwich street, in association with Professor Hammersley, which situation he retained till April, 1824. In 1821, he was elected a Fellow of the College of Physicians and Surgeons, New York.

The year 1824 may be considered as the turn in the tide of his fortunes. In this year appeared his celebrated "Elements of the Etiology and Philosophy of Epidemics;" a work so learned and so logical as to have attracted everywhere the most profound attention, and stamped its author as a man of no ordinary thought and ability; which has been pronounced by a late English writer to have been "fifty years in advance of the medical literature of the day, on its subject," and has not even yet, we believe, been surpassed or superseded. In the *Medico-Chirurgical Review* for July, 1825, it is pronounced "ingenious and philosophical, characterized not only by great talent and force of argument, but by candor and good faith," and as "doing great honor to trans-Atlantic medicine." We find, by reference to a "report on the Medical Topography and Epidemics of the State of New York," submitted to the American Medical Association in 1860, and published in their Transactions, that to the views, terminology, classification, and etiology of epidemics adopted in his "Elements," Dr. Smith still adhered, and we regret that our limited space does not enable us to do more ample justice to this truly classical work.

It was undoubtedly owing to the evidences of great ability manifested in, and the reputation achieved by this publication, that Dr. Smith owed his unsolicited appointment, in 1826, to the chair of Theory and Practice of Physic, in the College of Physicians and Surgeons of this city, as the successor of the great Dr. David Hosack; in which institution, as we all know, he continued a Professor until his death.

The zeal, ability, punctuality, and fidelity with which he performed the duties of a teacher, even to the very last period of his life, when exhaustion scarcely permitted him to struggle on to the completion of his course, are beautifully characteristic of that ardent devotion to duty and rectitude of principle which characterized his long and useful career.

In 1829, Dr. Smith was appointed attending Physician to the New York Hospital. This position he continued to hold with advantage to the interests of the institution and its patients, and most acceptably to the students who congregated there for clinical instruction, until his decease.

During the cholera epidemic in this city in the year 1849, Dr. Smith served with Drs. J. B. Beck and Samuel W. Moore, as a member of the Sanitary Committee, these three constituting the "Medical Council." Three abler and fitter men could not have been selected; and we find that their duties were fulfilled with great and conscientious zeal and ability; their measures prompt and judicious; their public addresses prudent and practical; their advice relating to the prophylaxis of the disease, such as could not fail, if properly attended to, to be immensely beneficial. Their labors were arduous, but they found their reward in the assurance of their great public utility, the satisfaction of their own consciences, and the approbation of their fellow-citizens.

In 1850, Dr. Smith delivered an oration on the occasion of the fourth anniversary of the establishment of the New York Academy of Medicine. The subject was rather an unusual one, the "mental phenomena manifested in the lives and deaths of military men," but it was marked with his usual extent of research, felicity of illustration, logical acumen, and elegance of style and diction.

In 1854, he was unanimously elected President of the N. Y. Academy of Medicine; the duties of which situation he filled with wonted urbanity and acceptability, for the prescribed period of one year.

In 1853 and 1854, he assumed the professorial duties in the college, of his friend Dr. J. B. Beck, and during the fatal illness of the latter, conjointly with those of his own chair, delivered the lectures on the Materia Medica. In 1855, he assumed the exclusive duties of this chair; those of Practice and Physiology being divided between Drs. Alonzo Clark and Jno. C. Dalton. In this capacity he continued until the period of his death, which occurred some six or seven weeks after the completion of his course. In 1864, he was appointed President of the Council of Hygiene of the Citizens' Association of N. Y.; to whose efforts is due the establishment of the present Board of Health, and the active, ably devised, and we trust, efficient improvement in the sanitary condition of the city which is so greatly needed, and in view of the pestilence with which we are hourly menaced, so indispensable to the public health and welfare. To the duties of this office he gave his most earnest attention and highest abilities.

They corresponded perfectly with his tastes and studies, and his opinions upon all subjects of Hygiene were necessarily regarded with the highest respect and deference.

We now approach the end of this modest, but active, useful, and brilliant career; one which had elevated Dr. S. to the highest eminence in the estimation both of his professional brethren and of the public. The mental and bodily wear and tear of so long and busy a life, aided by the increasing infirmities of age, at length overcame a constitution naturally robust, and fortified by temperance and abstinence. About a month before the commencement of his last course of lectures, his stomach lost both its tone and its retentiveness; although he still continued to attend to his professional duties, private and hospital; but, for almost the first time in forty years, he missed the delivery of the first twelve lectures of his course. In November, afterwards, he resumed and completed them; though often obliged from debility to seek in repose, upon his return from the college, the strength needed for the fulfillment of the duties of the morrow. He could not bear that the students should be deprived of their due share of instruction; and, like the pelican in the fable, he may be said to have nourished his young with the life-blood from his own breast. Such sacrifices of self to duty are as rare as they are beautiful; but such was the man.

For some weeks afterwards he was very ill; but rallied, took a little out-door carriage exercise, and seemed improving. But the amendment was illusory. The flame leaped up in the socket with a sudden warning blaze, to be the sooner extinguished. On Thursday, April 19, at 9 A.M., while sitting up in his bed, and taking nourishment, the "golden bowl was broken and the silver cords were loosened." Hemiplegia gently seized his entire left side. His consciousness continued until evening; and his last intelligible accents conveyed a blessing to his devoted and dutiful son. He lay for two days in a quiet coma, without stertor, grimace, or convulsions; until on Sunday, 22d, at 7.20 A.M., nature and his labors both exhausted, his beautiful and gentle life ended in a death as gentle and as beautiful.

> "They thought him dying when he slept,
> And sleeping when he died."

His funeral services took place on the Tuesday following, April 24, in the church of his pastor, the Rev. Dr. Adams, who justly eulogized him as a man without guile, in the midst of a large concourse of his sorrowing brethren and friends. He was in the 77th year of his age. His remains were taken to his native place, New Rochelle, and interred, with others of his kindred, in the family vault at that place.

Thus died, honored and respected, one of the best and ablest men whom the profession in this country has produced. At a proper time, at proper length, and in fitting terms, a suitable eulogy will no doubt be made of his merits. For the present, let the love, respect, and confidence of all who knew him furnish his epitaph: love for his suavity, respect for his virtues, confidence in his learning, his judgment, and his skill. If any monument be needed, the pages of American medical literature will supply one, *ære perennius*. This is the humble tribute to his memory of a pupil and a friend.

We append a list of his principal writings other than those to which we have incidentally alluded:—

1. Case of Stricture of Pelvis, with Autopsy. By Prof. Mott. (*N. Y. Med. Register.*)
2. Case of Dyspepsia, with Constipation. (*Med. Repos.*)
3. Review of Sir G. Blane's "Medical Logic." (*Med. Repos.*)
4. Review of Gregory's Practice of Medicine. (*N. Y. Med. & Phys. Jour.*, 1827, Vol. 1.)
5. Review of Bechet's Pathological Anatomy, and Martinet's Manual of Pathology. (*N. Y. Med. & Phys. Jour.*) Dr. S. was, for one year, 1828, associated in the conduct of this journal.
6. Biographical Memoir of Dr. Dupuy. (*Same work.*)
7. Introductory Lecture at College, 1831, on the Epidemic Cholera of Asia and Europe.
8. Ditto, 1839. "Comparative View of the State of Medicine in 1733 and 1833."
9. Ditto, in 1846, on the "Public Duties of Medical Men:"
10. Ditto, in 1848. "Influence of Disease on the Intellectual and Moral Powers."
11. An Address delivered on the Occasion of the Inauguration of the New South Building of the N. Y. Hospital. April 18, 1855.
12. Report on Practical Medicine. (*Am. Med. Trans.* Vol. 1.)
13. Report on Public Hygiene. (*Trans. Am. Med. Assoc.*, V. 3.)
14. Sketch of the Professional Life and Character of Matson Smith, M.D., of New Rochelle.
15. Notice of Louis on the Yellow Fever of Gibraltar, 1828. (*N. Y. Jour. Med.*)
16. Puerperal Fever: its Causes and Mode of Propagation. Read before the N. Y. Academy of Medicine. Published in the *N. Y. Jour. of Med.*, and for private circulation. This learned, logical, and exhaustive essay, which is an almost unequalled authority on the subject and causes of this interesting and important disease, was widely noticed and most favorably commented on abroad.

The report on the Medical Topography Association, 1860, of the Epidemics of New York (*Trans. Am. Med.*) is a volume of 200 pages, compiled with immense learning, labor, and research, and has been greeted with the most lavish eulogium by the reviewers and the profession, from whom many letters were received in terms of the highest commendation. In the meteorological section of the work, to which he gave especial labor and attention, Dr. S. introduced several scientific, new, and appropriate terms, and illustrated the climate of the State in an ingenious and original manner by maps, plates, and tables.

Such are a few of the arduous and ably accomplished labors of a long, literary, and industrious life, on which rest Dr. Smith's claims to the respect of his medical brethren and to the favorable verdict of posterity.

P.S.—A portrait of Dr. Smith, said to be a very life-like resemblance, by Baker, was taken for and presented by several of his older office students to the Governors of the New York Hospital, and by them placed among the portraits of those who had faithfully served the institution—an honor which no one, surely, has more richly deserved.

LEMAIRE ZABRISKIE, M.D.

Abstulit atra dies et funere mersit acerbo.
Virg. Æneid, Lib. vi, 429.

LEMAIRE ZABRISKIE, M.D., the elder son of Christian Zabriskie, Jr., was born in New York city February 3d, 1844. After having passed the usual novitiate in one of the public schools of the city, he entered, July 16th, 1858, the College of the City of New York, then known as the "Free Academy." Here he at once attained the highest position in his class, and in the Junior year, won

the gold medal for "General Proficiency," an honor gained by but one other in the history of the Institution.

Besides this, he also received certificates showing him to be the ranking student in "English Literature," "Logic," and "Astronomy." In his Senior year, there were awarded him the gold medal for "greatest proficiency in mathematics," and certificates of similar import in the departments of "Latin" and "Moral Philosophy." He closed his scholastic career July, 1863, with still another coveted prize, the Valedictory Address at Commencement. He now entered with zeal upon the study of his chosen profession, and by a devotion to details soon achieved among his fellows a reputation for accurate and thorough knowledge which suffered not at all in the searching examinations to which, for two years, he was subjected in the office of Prof. James R. Wood, his medical preceptor. After the reception of his degree, Feb. 24, 1866, from the Bellevue Hospital Medical College, he successfully passed the prescribed examination which was to constitute him an *interne* of the hospital. But in the course of his duties, which he never neglected but always exceeded, he fell at his post March 29th, 1866, a martyr to Typhoid fever, loved, admired, and mourned by all.

PROF. HENRY G. COX, M.D.

Dr. Henry George Cox, a native of the island of Bermuda, where he received his Baccalaureate degree from the Devonshire College in 1838, and held several local positions of importance, emigrated to this city in his twenty-third year. Soon after his graduation in 1849 from the College of Physicians and Surgeons, he was appointed assistant physician to the Quarantine Hospital, Staten Island, and served as such until 1850. He was then called to fill the position of Physician to the New York State Emigrant Hospital, which he, in turn, resigned in 1855, in order to assume the Chair of the Theory and Practice of Medicine in the New York Medical College, the duties of which he discharged until the suspension of that institution in 1864. He was also a physician to the Nursery and Child's Hospital from 1854 to 1859. He had scarcely entered upon his position of Consulting Physician to the Emigrants' Hospital, to which by way of recognition for past services the Commissioners of Emigration had recently appointed him, before he was seized with a paralysis, which ended his existence, May 29, after an illness of three weeks.

He was widely known as a skilful, conscientious practitioner, and universally esteemed for his kindly disposition.

New Publications.

Books and Pamphlets received.

Why Not? A Book for every Woman. The Prize Essay, to which the American Medical Association awarded the Gold Medal for 1865, by Horatio R. Storer, M.D., of Boston. Issued for general circulation by order of the American Medical Association. Boston: Lee & Shepard, 1866.

Food and its Digestion; read before the Albany Institute, Feb. 27, 1865, by Howard Townsend, M.D., Prof. of Physiology and Materia Medica, Albany Medical College.

Instruction in the Preparation, Administration, and Properties of Nitrous Oxide, etc., by Geo. T. Barker, D.D.S., Prof. of the Principles of Dental Surgery and Therapeutics in the Pennsylvania College of Dental Surgery. Philadelphia: Rubencame & Stockton, 1866.

Advice upon Epidemic Cholera, by Edward R. Squibb, M.D., Brooklyn, N. Y.: N. Y. Printing Company, 81, 83, and 85 Centre Street, 1866.

On Idiocy, by E. Seguin, M.D. N. Y.: W. Wood & Co., 1866.

Medical News.

Appointments.

New York Hospital.—Drs. Governeur M. Smith and C. E. Hackley have been appointed Attending Physicians.

Philadelphia Hospital.—Dr. Jas. De Benneville has been appointed Attending Physician.

Bellevue Hospital.—Dr. H. B. Sands, Attending Surgeon, vice Dr. W. Parker, resigned.

Quarantine Hospitals for New York.—The Board of Health, with the aid of the General Government, took possession on the 6th inst., of the State lands at Seguin's Point, Staten Island, for Cholera Hospitals. The passengers on board the Cholera Ships will be transferred to this place as soon as it is cleansed, and the old buildings which are on it made fit for their reception.

PROGRESS OF THE CHOLERA.

England.—Owing to the appearance of the cholera at Rotterdam, and the progress made by the disease even at this early season, the Committee of the Privy Council have issued a circular to the local authorities at the different outports in the United Kingdom, urging them to take precautions against the introduction of cholera, and to be prepared for its coming.

Cases have occurred at Bristol, Hull, and Liverpool—the name of Dr. Ross, of the Helvetia, appears upon the mortality-lists of the last-mentioned city. The *London Times*, in a leader of the 2d ultimo, pronounced it "less of an exotic pestilence, and more of an ordinary epidemic," an expression probably of some value as indicating the mildness of the type and the absence of any general panic. We may also state that Earl Granville declared in the House of Lords on the 15th ult. that a thorough system of quarantine could not be carried out in England, and that the government had given the local authorities all the powers the law empowered them to give.

The West Indies.—Two cases of sporadic cholera, which did not, however, result fatally, occurred at Havana during the latter part of May, but the general health of the island of Cuba was reported satisfactory. The cholera, upon which previous accounts agreed as having abated at Guadaloupe, has again broken out at Pointe à Pètre. The sanitary condition of the other islands of this group is, as far as known, good.

Detroit, Mich.—According to the *Free Press* of the 29th ult., three deaths occurred among the children of an emigrant party which arrived in the city by way of the Great Western Railway. One of the children died on board the train, and the other two at the dépot. No autopsies were held, and we are merely informed that the family was extremely filthy, and had just come from the ship which brought them over.

Quarantine, N.Y.—Of the sick belonging to the Virginia, the last death by cholera occurred on the 23d ult., since which time there had been no admissions, from the 7th ult. to the 28th ult., when all the cases were convalescent. All the steerage passengers of the Virginia who had not been attacked with the disease were, accordingly, permitted to come to the city on the 30th ult.

The British steamship Union, Captain Palmer, from Liverpool, arrived May 29th, after a passage of sixteen days and a half. She left port May 12th, with 434 passengers, and the first case occurred on the 18th in the person of a Dane, who died twelve hours after the attack. Thirty-three died on the passage, mostly of cholera, and thirty-four were sick upon arrival.

The steamer Union was joined May 30th by the steamship Peruvian, from Liverpool, with seven hundred and fifty-eight passengers, of which number twenty-eight were sick with the pestilence. Thirty-five deaths had occurred during the voyage, and many of those who were removed upon their arrival at this port on board the hospital ship were in a dying condition.

A revenue cutter has been, or will be, stationed in the lower bay for the protection of the quarantine vessels, and to prevent the passengers detained there from escaping to the shore.

New York City.—Dr. Harris reports the following: "The case in the Sixth avenue was that of a woman who lived over a stable in a tenant-house where the sinks were offensive, and causes of cholera abundant. She was seized with the ordinary symptoms of cholera on Wednesday, began to recover on Thursday evening, and is quite well this morning (June 1st)."

On board the Steamship Helvetia.—The officers of the steamship City of Paris, recently from Liverpool, report that the cholera broke out on the steamship Helvetia while that vessel was between Liverpool and Queenstown, and that the Helvetia had returned to Liverpool in consequence thereof. The Helvetia belongs to the National Steam Navigation Company's line, and is said to have had a large number of passengers on board. She left Liverpool on the 27th of April for this port via Queenstown, and had scarcely got under way, when the disease made its appearance.

The Cholera Epidemic in the City of Altenburg,* Germany, in 1865.—The city has 1,359 houses, occupied by 4,112 different families, and contains 17,966 inhabitants. The city, before the outbreak of the cholera, was in an unusually healthy condition. Still, a greater part of the middle class lived almost entirely on bread and vegetables, rank coffee and beer; only among the better classes was meat regularly eaten. The first case of cholera was the daughter of a lady who came from Odessa, leaving the latter place on the 16th of August, and reaching Altenburg on the 24th, having travelled nine days and nine nights without cessation. On the 27th of August, at noon, a physician was called on account of diarrhœa in the child, which had existed at the time it left Odessa. The mother was well. There was at this time no epidemic in Odessa; the passengers on the vessel on which the two had come from that port, were also well. Still she (the vessel) had passed by certain places on the Turkish border where the cholera was raging. On the same day (August 27th), at nine P.M., the lady became sick also. She had all the symptoms of Asiatic cholera when the doctor saw her early on the following morning, and on August 29th, at half-past two A.M., she died. In the same house, on the 29th of August, at eight P.M., the sister-in-law of the lady was attacked with cholera and died on August 30th, at half-past eleven P.M. This house formed the first centre of infection, from which the disease could be shown to have extended. The epidemic lasted from August 28th to November 18th. Of the one hundred and eighty cases which occurred, one hundred and eight were fatal—that is, 60 per cent. In the greater number of epidemics as yet observed in Europe, the mortality was only 50 per cent. Those who died, with two exceptions, belonged to the working class. The disease seemed most dangerous to those in advanced years or who were very young. Every person attacked who was more than sixty years of age, died, and also every child less than one year old.

Although the city of Altenburg remained in regular and free communication with the surrounding duchy, the cholera did not extend very much. It did extend somewhat, however, into the little villages of the duchy. The epidemic, however, reached over into the adjoining kingdom of Saxony, the details of which are promised in a later number of the Journal. To prevent the spread of the disease, public and private disinfection was carried out. Sulphate of iron, one pound to five or eight pounds of water, was used, to disinfect the dejections in the vessels and privies. The bodies of those who died from cholera were immediately removed to a receiving-room or vault. Soiled linen was immediately dipped in a solution of chloride of lime, and then in running water. Such a course seemed to prevent the extension of the epidemic, of which assertion many illustrations are given, which our space does not allow us to quote. *Pettenkofer* visited Altenburg during the epidemic and verified his ideas as to the essentials for the extension of cholera. His views are that first, a *carrier of the infectious material* must be had, which obtained in Altenburg in the person of the lady and child from Odessa. The diarrhœa existing in the child during the whole journey furnished in the dejections and soiled linen, this infectious material.

The second essential, according to Pettenkofer, is a surface of earth, inhabited by human beings, which is permeable for water and air down to a certain depth, and then the presence of organic material—that is, material infected with excrements, and finally, at intervals diminution in the moisture of this surface. These conditions were fulfilled in the alluvial soil, which obtains in many parts of Altenburg; and the woman who came from Odessa, unfortunately came to a house well prepared by the character of the soil under it, for the extension of the poison of cholera. The child, first seized with diarrhœa, died of debility on the 31st of August.—*Dr. Ploss, of Leipsic, in the "Zeitschrift für Medicin," etc., v. Band. 3 Heft.*

* The city of Altenburg is in the little duchy of the same name, situated on the railroad between Leipsic and Nuremburg.

East River Medical Association.—Dr. A. P. Williams was elected a member of the Association at the last regular meeting. Dr. James H. Anderson will read a paper upon "Cholera Infantum" at the next meeting, on the 2d proximo.

Changes and Appointments in the Metropolitan Health Board.—Dr. James W. McLean has been appointed sanitary inspector, vice Dr. Robert Newman sailed for Europe, and Dr. Lewis Applegate has been elected clerk, vice Dr. McLean promoted.

Health of Philadelphia.—Previously to every epidemic of cholera which has prevailed in this city an epidemic constitution of the atmosphere has always manifested itself in an increase of deaths from bowel affections. No such condition of things seems to exist at the present moment. The whole number of deaths from cholera infantum, diarrhœa, and dysentery, for the week ending May 26, was only six, in a mortality from all diseases of 288.—*Medical News and Library.*

Errata.—Medical Society, County of New York, 3d paragraph, 5th line, page 91. after "complete division," read "of the sphincter ani muscle." On page 176, first column, 12th line from the top, read. "in America, quackery celebrates its triumphs," instead of "an American."

Original Communications.

FACTS AND CONCLUSIONS

BEARING UPON THE QUESTIONS OF THE

INFECTIOUS CHARACTER OF ASIATIC CHOLERA,

AND THE NECESSITY OF A GENERAL, UNIFORM, AND EFFICIENT SYSTEM OF QUARANTINE AT ALL OUR PORTS,

AS COMMUNICATED IN A LETTER TO THE

HON. Z. CHANDLER, CHAIRMAN OF THE SENATE COMMITTEE ON COMMERCE.

BY CHARLES A. LEE, M.D.,
OF NEW YORK, AND
J. M. TONER, M.D.,
OF WASHINGTON, D.C.

SIR: As the question of instituting a general and uniform system of quarantine is still before the Senate, will you allow the undersigned to state briefly some of the arguments and conclusions arrived at on this subject by those who have made the cholera a special study?

Pestilential cholera, with strongly-marked infectious properties, first commenced at Jessore, a populous town in the centre of the Ganges, and cut off a majority of those whom it attacked. It spread in every direction throughout India and the adjoining countries; and although there have been at times intervals of complete immunity from its presence, it may be said to have become naturalized in India, and now forms one of the diseases of the country.

For several years it was confined to eastern and central Asia; in 1829 it invaded Russia, and the central and western countries of Europe; in 1831 it appeared, for the first time, in England, and was distinctly traced to ships arriving from Riga, Cronstadt, Hamburg, and Dantzic, where the disease prevailed, and the infection was conveyed to many places in both England and Scotland, in the clothes and bedding of sailors who had died, either in those foreign places, or on the passage of ships to English ports.

From England, the pestilence was conveyed in an emigrant vessel across the Atlantic to Quebec, in the spring of 1832, many emigrants having died with it on the passage. It broke out in a severe epidemic form at Quebec on the 6th of June, three days after landing; and on the 10th the first case occurred at Montreal, whence it extended to places on the lakes, and down the Champlain Canal and Hudson river to New York, where it appeared on the 24th of June. From thence it spread south and east, and in different directions, till it prevailed very generally over our country. In every invasion of cholera since, its course along the main routes of travel can be distinctly traced; while in large numbers of instances it has been known to be carried by persons who had been exposed to the disease in infected places, to hitherto healthy localities, and there communicated to their families, nurses, and attendants. Dr. Evans, in his memorial to Congress, has given many striking instances of the kind which occurred under his observation, where the disease was carried from Chicago, in 1849, to numerous villages in the interior of Illinois.

When the cholera first appeared in India, it was not regarded as contagious or communicable, but was believed to be of atmospheric origin, and propagated by atmospheric influences; and no special measures were adopted to prevent its spread. Year by year, however, it grew more malignant and infectious, and became a source of serious alarm to nations and governments.

Hence, for more than thirty years, it has been a subject of special study and observation by the best minds in the medical profession; and scientific commissions to investigate its nature and mode of propagation have been appointed by the chief governments of Europe; which, with great unanimity, have arrived at the following conclusions:

1st. That cholera is a peculiar and specific disease which originated in India, and has never been known to originate elsewhere, and is capable of reproducing itself under favoring circumstances in every country and climate.

2d. That the disease is portable and infectious.

3d. The more recent investigations show the great probability that the germs of the disease are contained chiefly in the dejections and excretions of the body, in every stage of the malady, from its first inception, whether its character is mild or malignant.

4th. The evidence of the portability and infectious properties of cholera is to be gathered from the history of each of the several occasions that it has prevailed in the United States.

5th. The evidence is complete to show that Asiatic or infectious cholera has never originated in the United States, but in every instance in which it has prevailed in America, has been brought in ships and landed upon our shores. A few instances of this may serve to impress this point still more strongly on the mind.

6th. During the last thirty years, ten epidemics of cholera have occurred at the New York Quarantine station, which were distinctly traced to cholera patients from ships from foreign ports; and, in six instances, at a time when there was no cholera upon our Atlantic coast.

7th. The first visitation of cholera upon our shores, through the port of Quebec, has been alluded to. The second was through the emigrant ship New York, which sailed from Havre on the 9th of November, 1848; during the passage fourteen fatal cases of cholera occurred. The ship arrived at the Quarantine station on Staten Island on the 2d December, when the sick and passengers were landed. A severe epidemic of cholera immediately broke out on the island in midwinter, causing many deaths; but, owing to strict quarantine, the disease did not reach the city.

8th. The ship Swanton, from Havre, arrived at New Orleans on the 11th December, 1848, nine days after the New York arrived at Staten Island, with 280 emigrants on board. Thirteen passengers had died with cholera on the passage. No quarantine was instituted, and the ship came to the wharf. The day after the arrival of the passengers in the city, the cholera broke out, and became epidemic.

9th. The Atlanta, from Havre, arrived at New York on the 2d of November last, with a large number of German emigrants; many had died of cholera on the passage. The disease was confined exclusively to the steerage passengers. A strict quarantine prevented the introduction of the disease into the city.

10th. It will be recollected that the steamships England put into Halifax on the 9th of last month, with some 1,200 passengers and a crew of 100 men, with a large number of German passengers who had come from places infected with cholera; 160 cases of the disease occurred on board, and fifty deaths during the passage. Owing to strict quarantine at Quebec, the disease was checked there, and the ship is now at quarantine in New York—the passengers having been landed after undergoing the usual quarantine. It will

also be remembered that on the 18th of April, now nearly one month ago, the steamship Virginia arrived at New York with over 1,000 passengers, most of them Germans, many of them from infected places in Germany, where they had been exposed to the disease. About fifty died of cholera on the passage. Many new cases have occurred among the passengers since her arrival, but the disease, by strict quarantine, has been kept out of the city, nor has it spread in any direction.

The above cases serve to illustrate forcibly the success of an efficient quarantine.

11th. The cholera had never appeared on the coast of South Carolina before the arrival of the brig Amelia, in October, 1832, which was wrecked on Folly Island. She had sailed from New York on the 19th of October, 1832, bound to New Orleans, with over one hundred passengers; twenty-four had died of cholera on the passage. After being shipwrecked, a body of wreckers went over from Charleston to secure the vessel and cargo. Most of them were attacked with cholera, and eight of them died. Eighteen men had been detailed from the city guard to act as a *cordon sanitaire;* they communicated freely with the sick and passengers, and every one of them was speedily attacked with the disease. Of the four negroes, who were the sole residents on the island, three died of cholera within a few days.

12th. Cholera had never appeared at Key West until the arrival of the Ajax, which had sailed from the infected port of New Orleans with the disease on board, when it immediately broke out on the landing of the passengers.

13th. These are but a few of the instances that might be given where cholera has been carried from one place to another in ships; and, although the disease is not contagious, in the same manner as small-pox and scarlet fever, yet there can be no longer any doubt that it spreads by means of human intercourse. This we regard as so well established, that a practical disregard of it involves the assumption of a grave responsibility.

Cholera sometimes breaks out on board of vessels many days after they have sailed, and after a longer period has elapsed since leaving port than the longest known period of incubation of the disease. But in all such cases, we maintain that clothing from infected places or persons has been opened on board, and passengers have been exposed to these infected articles, and thus have taken the disease. Sufficient facts are now on record to warrant the assertion that the connexion between the arrival from an infected to a healthy and often isolated locality, of those sick with cholera or their effects, and the speedy appearance of the disease in that locality, is sufficiently immediate to stand in the relation of cause and effect.

14th. The negative evidence which is advanced against the infectious nature of cholera, does not weaken the accumulated force of the facts in its favor, many of which do not admit of a reasonable doubt; but it is always to be borne in mind, that the liability to the disease in healthy individuals is comparatively slight, and is diminished or strengthened by localizing causes, as filth, impurity of the air and drinking water, moisture, etc.

15th. Cholera derives its malignant and epidemic character from these localizing causes; as dark and damp habitations, filthy streets, decaying organic matters, bad drainage, local dampness, malarial influence, obstructed sewers, neglected gutters, stables, garbage, cesspools, privies, overcrowding, and neglect of ventilation; and if proper sanitary measures are adopted in our cities, towns, and villages, and the dejections of cholera patients immediately disinfected, the spread of the disease may be entirely controlled and kept within limited bounds, as it has been on Staten Island during the last year, and other places.

16th. The recent cholera epidemic in Constantinople, where it is estimated that 50,000 persons died of the disease, adds overwhelming testimony to illustrate this point. The sanitary condition of that city is exceedingly defective, all offal and filth being thrown into the streets, where it undergoes putrefaction exposed to a burning sun. The only drains are open ditches in the middle of the narrow streets; and the Turkish houses are, as a rule, wanting in the most necessary conditions of health.

17th. An examination of our consular correspondence in the office of the Secretary of State, amply confirms the preceding statements. The Hon. J. O. Putnam, U. S. Consul at Havre, writes as follows, under date of November 30, 1865:

"Cholera first made its appearance here on the 10th October. It was undoubtedly brought here by German emigrants, of whom, from the 7th to the 9th of October, there were about nine hundred, who arrived from Paris, where the disease was at its height. The emigrants were *en route* for New York. The cholera broke out among them on the morning of the 10th. Nine adults were taken to the hospital, of whom eight died in the course of forty-eight hours. There were also two or three deaths from cholera in the emigrant hotels."

Many of these German emigrants embarked in the ship Atlanta, which brought the disease to New York in November last, as above stated.

18th. Our Consul-General at Florence, T. Bigelow Lawrence, writes as follows, under date of September 25, 1865:

"I have the honor to transmit herewith a despatch from our consul at Genoa, reporting the recent appearance of a very few cases of Asiatic cholera within his district, with a general account of the malady in other portions of the kingdom, and the sanitary measures adopted against its increase and general dissemination. The history of the progress of this terrible disease during the present season *proves beyond question that it is, according to the usual acceptation of the term, contagious, and need not become epidemic where quarantine measures, combined with judicious sanitary regulations, are strictly enforced.*

"The statistics upon the subject from this kingdom so strongly support this theory, that it is ardently to be hoped the experience of Italy will serve as a guide to other nations as yet exempt from its visitation. The circulation among the municipal authorities of our Atlantic seaports of some of the facts contained in the accompanying despatch, *with a recommendation from the General Government that a rigid quarantine be enforced in the case of all vessels arriving from infected localities, may be the means of saving our country from the ravages of a pestilence which there is every reason to believe will at an early day approach its shores; but which, with the experience of Italy and the Mediterranean nations in view, need by no means obtain an established foothold therein.*"

In a subsequent letter dated "Florence, October 23, 1865," Mr. Lawrence remarks as follows: "The Asiatic cholera has greatly diminished in the infected districts in the southern and eastern portions of the Italian Kingdom, owing partly to the cool autumnal weather, *and in a still greater measure to the strict sanitary and quarantine regulations which have been rigidly enforced. The efficiency of these measures may be considered tested, and their value proved in the case of Italy, where the pestilence is diminishing; while in France, where the climate is more temperate, and the good habits of the people much more favorable to health, it is greatly on the increase.*"

The United States Consul, J. A. Johnson, at Beirut, Syria, writes to the Secretary of State as follows, under date of February 28, 1866:

"*The cholera was introduced into Beirut from Egypt by steamers*, some of whose passengers died *en route* in the quarantine, and in the streets and houses of the town." He also states that the disease could be traced distinctly *from place to place by means of human intercourse*, and that it was kept out of places by strict quarantine. He reports that "the cholera was brought into Damascus by the guards of the pilgrims, who opened the packages of clothing they had plundered from the dead, and that it first appeared in the locality inhabited by them."

The Vice-Consul at Aleppo reports, "*that the disease was brought there by fugitives from the coast towns, and was increased by the arrival of thirty putrid bodies brought by pilgrims for burial.*" *He also states that both at Aleppo and Damascus*, "*those who maintained a strict quarantine in their houses were not infected;*" *that* "*cholera was first brought to Syria in* 1832, *by Moslem pilgrims from Hijas;*" *and that in* 1848, *the infection was introduced into Damascus by Moslem pilgrims from the north.* "I have learned," he adds, "from the English Consul-General, that on the arrival from Egypt of an infected steamer, which was permitted to perform a three days' quarantine off Beirut, almost the entire crew of a British corvette, lying at anchor to windward, suffered severely from diarrhœa. Quarantines, to be efficacious, should be located several miles distant from populated cities. *The cholera is no doubt a product of India, and is carried by pilgrims, through rapid steam communication*, to Mecca, where the immense crowds of half-famished devotees, already sickened by the putrid remains of sacrifices, furnish circumstances favorable to the rapid increase and spread of the poison." "*A quarantine on all vessels arriving at Jeddah and Bassorah, and all pilgrims at Suez, might do much towards stifling this scourge in its infancy, or, at least, to confine it to the country in which it is indigenous.*" "It is to be hoped," says our Consul, "that the cholera conference, now in session at Constantinople, may accomplish this, if no more; else it is to be feared that the visitation of this dreadful plague will become annual in Europe, and possibly in America."

The testimony of all our Consuls abroad where cholera has prevailed, is to the same effect; and the opinion of physicians in Europe has been constantly tending to a belief in the portable and infectious character of the disease, till there is at this time great unanimity on the subject.

In the United States, except at a few of our larger ports, as New York and Philadelphia, quarantine against foreign pestilence has been either imperfectly enforced or not instituted at all, and our country is absolutely at the mercy of any foreign infectious pestilence that may be brought into it. If quarantines are, in some measure, destructive to commerce and burdensome to the merchant, they are also protective of his life and conducive to his interest. The pecuniary loss of a hundred years by the quarantine establishment of a large city cannot equal the ruin and desolation of a single season of the pestilence. It is a remark of the learned Dr. Copland, that "*to the entire neglect of government measures of prevention, and to insufficiently strict quarantine regulations, the extension of the cholera pestilence throughout the countries of the East, and through Europe and America, is entirely to be imputed.*"

In regard to the question of quarantine, we take it for granted that every right-minded person will agree that it is not only the province, but the duty of a State or nation, to enforce, through its local authorities in every part of the country, such sanitary measures as will prevent a domestic origin of pestilential diseases. It follows, then, that if it is proper for the Government to endeavor to prevent, by proper legislation and police inspection, the origin of infectious diseases, it is equally its duty to see that no portable or infectious disease be permitted to spread from an infected to an adjacent and healthy locality. Indeed, we believe that each State, municipality, and city, throughout our country, possesses the right to surround itself with a *cordon sanitaire*, if it chooses, so as to prevent infected persons or things from entering its borders, either by land or water. There can be no question that if truly contagious disease, whether of foreign or domestic origin, was to break out or prevail in any one of our large cities, it would soon be conveyed by persons or effects, coastwise or overland, to all the other cities, unless prevented by an internal quarantine. However, the chief danger to be apprehended in the United States from pestilential and communicable diseases arises from the facility with which they may be imported and landed from foreign countries, in consequence of our inefficient system of quarantine.

We apprehend there is no apology necessary for making suggestions at this time that may assist in devising and putting in practice a system of quarantine that will, in conjunction with internal sanitary regulations, prevent the introduction into our country of foreign and communicable diseases.

Those who believe in either the domestic origin or the atmospheric importation and spread of yellow fever, cholera, etc., place little or no reliance upon a *cordon sanitaire* or quarantine regulations.

Quarantine, as at present conducted, is opposed by ship-masters and importing merchants, on the ground that it unnecessarily and ruinously taxes, impedes, and restricts commerce. That there may have been arbitrary exactions and unnecessary detentions imposed upon shipping and passengers through faulty quarantine legislation by the different States, in their desire to prevent the introduction of foreign, portable, and infectious diseases, we will not pretend to deny. In many instances the want of suitable quarantine grounds, and the other necessary means of carrying into effect the principles of isolation and disinfection recognised as being essential to the success of such laws, has almost made failure a necessity, and brought the practice of quarantine into discredit.

Some philanthropic individuals oppose quarantine from the belief that many deaths occur there among passengers not sick when they arrive, and whose lives might be saved were they permitted to depart, but who contract the prevailing disease in consequence of the inhumanity of confining all, whether sick or well, in the same hospital, without that degree of classification or isolation that experience teaches to be essential to safety.

There is also a respectable and highly influential class of physicians and gentlemen who plant themselves on the broad ground of non-contagion in yellow fever and cholera, and therefore oppose all quarantine of persons. They, however, admit the necessity of throwing some protection around the community by favoring the fumigation and disinfection of vessels and cargoes when there has been much sickness upon the voyage or deaths from a specific and communicable disease. This class of physicians hold that the *materies morbi* or *fomites*, which are the cause of epidemics, and which are by many considered contagious, are purely atmospheric, and are carried in the confined air of ships, in merchandise, and through the open air, across the ocean and over a continent.

As a general rule, they leave out of view the important fact that there is a variable period of incubation in

most infectious diseases which extends from a few hours to ten or fifteen days. Suppose we grant that the essential poison of a communicable disease is not organic, there is, nevertheless, an incubatory period in all such diseases, so that a passenger may leave an infected ship apparently in perfect health, and may even have taken the precaution to have his clothing and trunks disinfected and fumigated, nevertheless the disease may be developed after having lain dormant in his system ten or twelve days, and thus, in some distant city or place, establish a new centre for the dispersion of the poison from which others coming within the sphere of its action may be affected, and the disease spread indefinitely.

Believing as we do that neither communicable yellow fever nor cholera has ever originated within the United States, and that the first cases in each of the epidemics which have prevailed in our country can be traced directly to infected emigrant ships or to passengers, merchandise, or personal effects which have been brought from infected vessels or foreign ports, we therefore contend that if an efficient and uniform system of quarantine be established at every port in the United States through which passengers or foreign merchandise arrive, these diseases may be prevented from entering and spreading over our country.

With the improvements which modern chemistry and science have placed in the hands of the profession, we are enabled to facilitate commerce by a speedy and thorough disinfection of a vessel and cargo, without the delay of first unloading it. We believe that the period of detention of passengers at quarantine may be materially shortened, and its dangers greatly lessened, by establishing a proper system of inspection and classification of all persons landing from infected vessels or ports, into the "infected," the "suspected," and the "healthy," and maintaining a rigid non-intercourse between the several classes.

Uniformity in the system of quarantine to be observed at each of the ports of the United States demands that all the doors against portable and infectious diseases should be closed, and no one port have any commercial advantage over another, by a longer or shorter detention of vessels, cargoes, or passengers.

Quarantine should not be enforced upon vessels, cargoes, or passengers unless arriving from or having landed at an infected port within a shorter period than the prevalent contagion requires for its development, or upon whose passage a disease of a portable and infectious nature had prevailed.

The assertion that quarantine has never kept cholera out of any country or city is a gratuitous assumption. Numerous instances and facts exist in proof of the contrary, as has been shown in Spain, Greece, and Italy, and recently at New York, Quebec, and Halifax. But should the present notoriously inefficient system of quarantine as practised at many of our ports fail, it would militate nothing against the principle recommended, but only be a further proof of the inefficiency of quarantine as now conducted. We know, as does every person at all familiar with American quarantine, that there is not that perfect system of inspection, sequestration, and isolation among the different classes of patients that humanity demands, and the nature of portable and infectious diseases requires for their complete arrest and annihilation.

The purpose of a quarantine, and the nature of the diseases met with there, make it obvious to a practical mind that every properly organized quarantine establishment requires to be located at a considerable distance from thickly-populated districts, and to have extensive grounds for anchorage, and separate and distinct hospital departments, so as to allow a proper classification of all persons arriving at the station. 1. A receiving and inspection. 2. A general hospital department for all cases of accident, and diseases other than those of a contagious character. 3. A hospital for infectious diseases. 4. A department for the suspected, in whom contagious disease may or may not be developed. 5. A department for the convalescent. 6. A department for those who are unaffected, and in the enjoyment of good health, but who for prudential reasons should be detained, after leaving an infected vessel, a time equal to the longest known incubatory period of the prevalent disease. As quarantine is most essential during the months from May to November, and not likely to be called for during the remainder of the year, it is not thought that it would be necessary for the Government to erect expensive warehouses and separate hospital departments at each of the quarantine stations. Temporary tents or tenements would answer. The Government has no doubt in its possession a vast number of army tents or barracks which would answer admirably at most of the stations. The essential conditions of an efficient quarantine are, a good wide anchorage-ground to the windward of the hospitals; warehouses for a class of goods which cannot be so speedily disinfected as to make it safe to land it with the rest of the cargo; and hospitals properly separated for the accommodation of patients according to their condition. If a principle of this kind, founded upon separation and non-intercourse of the departments, furnished with the most approved styles of water-closets and privies, were adopted at quarantine, the apprehensions and mortality from cholera would be greatly lessened. This principle of complete separation and sequestration of departments, with a space of a hundred or more feet between, and such subdivisions of departments as circumstances and experience may suggest, would, no doubt, have the effect to arrest and successfully prevent the introduction of cholera.

There is, we grant, just cause to complain of a system of quarantine which would confine those affected with actual cholera—the suspected, the convalescent, and the healthy—all together in the same vessel or hospital. Indeed, it is no wonder the plan practised in most of our ports, which is only a quarantine in name, should fail either to prevent the introduction or diffusion throughout the country of portable and infectious diseases.

The reason for putting the convalescent and healthy in separate departments is, lest the convalescent should by chance carry with them some trace of the disease, or relapse, and thus expose all those in a hitherto healthy quarter to the infection before the former could be removed. All well regulated hospitals throughout the country adopt the common-sense practice of keeping those afflicted with infectious diseases separate from the main building. What surgeon would not immediately remove an erysipelatous case from his surgical ward, or a typhoid or typhus fever case from among his other patients?

Humanity, and the enlightenment of the age, demand that a principle in quarantine be adopted, that all passengers from an infected ship be landed for treatment, and separated into classes in accordance with their actual condition of health, and cared for in suitable and separate departments, attended by an efficient corps of physicians and servants, and furnished with all the comforts essential to their condition; that they should have no communication with other departments; and that between these departments there should be maintained absolute non-intercourse, either of patients, nurses, clerks, physicians, or others, except by telegraph.

The clothing and personal effects of a passenger, on entering quarantine, should undergo disinfection, by

heat or otherwise, and all that is not absolutely needed for personal comfort should be forwarded to the convalescent or final quarantine department.

A very feasible plan of quarantine for cholera, with great minuteness of detail, has been submitted to the profession by Dr. W. Marsden, of Quebec. But if the Federal Government, or the different State authorities, with the aid and assistance of the General Government, adopt a uniform system of inspection and quarantine at all the ports where foreign commerce enters, on the theory of classifying the patients and keeping them in separate and isolated departments, and a speedy disinfection of the cargo, the details and mode of carrying the plan into operation had better be left to the judgment of the medical officer in charge, and to the exigencies that may arise at the different quarantine stations.

Dr. Copland, in his "Dictionary of Practical Medicine," lays down the following principles as essential to a proper and efficient quarantine of contagious diseases. "The sanitary division of the healthy into the susceptible and the non-susceptible, or those previously attacked, naturally dictates the classification of the sick into the decidedly infected, the suspected, and the unsuspected. There should therefore be three distinct hospital establishments, viz.: 1. The foul lazaretto, for pronounced cases. 2. The lazaretto of observation, for those cases which may or may not turn out to be infected. 3. The free or clean hospital, for accidents or non-susceptible sick. All the attendants of the first and second establishments—medical, clerical, and others—should be kept, if possible, in quarantine."

We would most earnestly recommend that all ships arriving with passengers on board among whom cholera or other foreign infectious diseases prevail, be required to land their passengers, to be treated in hospitals prepared for the purpose, and the vessel and cargo be turned over to proper officers to have her bilge-water removed, and to be disinfected and thoroughly fumigated and cleaned.

With the powerful disinfectants which the chemist has placed in the hands of the medical profession, capable of destroying all gaseous compounds as well as organic matter, we can see no reason why vessels and cargoes may not be disinfected within forty-eight hours after the passengers have been landed.

The effects of the steerage passengers, who are the most frequent sufferers, and the least able to sustain losses, either of baggage or time, ought to be thoroughly purified without material injury, and be subjected to the same detention, and no more, than that of other passengers

Humanity, as well as propriety, suggests that the condition of all who are detained at quarantine be made as comfortable as circumstances will permit, and that they be made as secure against the hazard of contracting the prevailing infection while at quarantine as possible.

Those disposed to supply themselves with clothing, food, and other articles of personal comfort, not supplied by the regulations of the establishment, which should be ample, ought nevertheless to be permitted to do so, unless, in the opinion of the medical officer, the demand would be injurious to health or discipline.

If a system of quarantine, based upon the principles indicated in this article, be enforced with uniformity and efficiency at all the ports of the United States, we feel entirely confident that not only cholera, but all other foreign and infectious disease, will be excluded from our country. That such a system would be a great amelioration of the dangers and hardships experienced by passengers who are required to undergo quarantine under the present regulations, is self-evident.

The shipping interest, too, will be greatly benefited by the inauguration of the system suggested, which provides that all the passengers be landed and treated in hospital, and, instead of detaining the vessel and cargo for months, as at present practised, they may be thoroughly disinfected within two or three days, after which they can safely be permitted to go into port and unload.

Washington, D. C., May 14, 1866.

POLYCYSTIC DISEASE OF BOTH OVARIES.—OVARIOTOMY.—RECOVERY.

By JOSEPH CREAMER, M.D.,

BROOKLYN, E. D.

On the twentieth of April I was consulted by Sarah Weildon, from whom I obtained the following history. She is forty-three years old; married twenty-one years, and the mother of seven children. Eight years ago, after a very tedious labor, she gave birth to a daughter. Her convalescence was unusually protracted, three months having elapsed after the accouchement before she felt sufficiently able to resume her customary household duties. She observed at this time that her abdomen did not regain its usual size, as after previous confinements; but, on the contrary, was slowly enlarging, which it continued to do for the space of eighteen months, when her attending physician tapped her, and drew off four gallons of fluid. Twelve months after the operation she gave birth to her last child, a healthy boy, now five years old. Has had two miscarriages since birth of boy; one twelve months, and the other two years after his birth. Doubtless at about this period the ovaries began to take on diseased action, for immediately after the first miscarriage she discovered a lump in the right side of her belly, which increased sufficiently during the past four years to interfere with important functions. On examination I found the extremities œdematous, the abdomen considerably enlarged, and measuring thirty-four inches and a half round the umbilicus. As she had obtained the opinion of a distinguished teacher in medicine, who pronounced emphatically on the character of the tumor, and advised strongly against surgical interference, I hesitated upon giving a positive opinion until consulting with some gentleman of more extended experience in abdominal tumors than myself; consequently I directed my patient to see Prof. C. A. Budd, who kindly examined the case with me, and unhesitatingly decided that the tumor was multilocular and the patient peculiarly adapted constitutionally for the operation, an opinion which the result has verified in every particular.

I prepared my patient for the proceeding by feeding her on oatmeal porridge and milk for three or four days, and forty-eight hours before operating, I gave her half a drachm of rhubarb and magnesia, which unloaded the intestinal canal. On Thursday, May 3d, in presence of Drs. Donner, Feeley, and Fisk, I operated by an incision on the linea alba of eight inches in length, and which extended from the umbilicus to the pubes. After opening the peritoneum and slitting it upwards and downwards with a probe-pointed bistoury to the full extent of the external wound, I found the omentum completely adherent to the superior surface of the tumor. Adhesions also existed between the sac and abdominal walls, and were very strong, especially at the seat of the old tapping, where they required some touches of the scalpel for removal. Happily no adhesions existed posteriorly. After carefully breaking up the adhesions between the sac and omentum, which required the application of considerable force before they

yielded, I then brought the sac forwards and tapped it with a large trocar, carrying a canula half an inch in diameter, which permitted the viscid fluid to pass without loss of time. Several smaller cysts were rapidly emptied in the same manner. The tumor was now turned out from the abdomen, and the pedicle exposed, which was about four inches long, and when unravelled, two inches in breadth. I passed a needle armed with a strong silk ligature through the centre of the pedicle, and strangulated it in two lateral halves; then cut the pedicle an inch outside the ligatures, cutting the latter short and dropping the whole into the peritoneal cavity. I now turned my attention to the left side; and, on bringing the left ovary to view, found it also the seat of cystic difficulty. It was treated in the same manner as the right ovary.

The wound was brought together by six points of alternate silver wire and silk suture passed through the peritoneum, adhesive straps in the intervals, a compress of cotton wool laid longitudinally each side of the wound, and the whole secured by a flannel roller.

But a trifle of fluid escaped into the abdominal cavity, so that my colleagues agreed with me in the propriety of avoiding a source of danger by sponging the pelvic cavity; so all was left to take its chance with the ligatures.

The operation occupied in all one hour from the moment of complete anæsthesia until she was placed in her bed. I visited her at eight o'clock P. M., two hours after the operation, and found my patient with a pulse of 120, complaining of difficulty of breathing, and a feeling of soreness in the wound. I ordered half a drachm of Majendie's solution, and found her much easier on my visit at ten o'clock, when I drew off eight ounces of urine. 4th.—She spent a very comfortable night, expresses herself as quite easy, and in great hopes of a speedy recovery. In addition to sucking small pieces of ice, which she has done constantly since the operation, I directed her to take small quantities of beef-tea during the day.

On *Monday*, the 7*th*, at two o'clock P.M. I removed four of the sutures, and found the wound healed by first intention. *Tuesday* 8th.—Removed remainder of sutures, and supported the parts well by adhesive straps and bandage.

Wednesday, 9*th*.—Complains of great uneasiness in the rectum, with some slight abdominal pain coming on in paroxysms, for which I administered an enema of warm water, which brought away two copious liquid motions, with much relief. *Friday*, 11th.—Diarrhœa set in and continued with some intermissions until the eighteenth, and left her very much prostrated. Her condition on *Saturday*, the 12th, caused me much anxiety; the abdomen became enormously distended with flatus, so much so that respiration was in some measure interfered with. I directed turpentine to be sprinkled on wool and placed in a position so as to be easily inhaled; also during the night fifteen drops of the same, suspended in mucilage, every two hours.

13*th*.—Respiration improved, and the abdomen less tense, but still sufficiently distended to warrant me in administering a terebinthinate enema, which brought away the balance of flatus, leaving her much relieved. The diarrhœa was completely arrested by the free administration of vegetable astringents and suppositories of opium, which latter, being invariably introduced in the evening, procured her a comfortable night's rest. From the eighteenth until the present she has had an uninterrupted return to health; and on Sunday, June 3d, one month from the date of the operation, I allowed her to return to her usual pursuits.

A mixture of equal parts of chloroform and ether was used, and the patient was not permitted to come from under the influence of the anæsthetic until placed comfortably in bed, where she gradually returned to consciousness without an unpleasant symptom.

The mode in which the pedicle was treated I believe to be *the one* attended with the least inconvenience and danger to the subject of ovariotomy. No ligatures pass through the wound, to perhaps become sources of irritation, and the dragging of the clamp is avoided. The method belongs to American surgery, and is deserving of a fair trial at the hands of the profession in this country. The honor belongs to Dr. D. L. Rogers, of New York, who first brought it into notice in 1829. He was followed by Bellinger in 1835; by Dr. Siebold of Darmstadt in 1846; and recently by Dr. Tyler Smith of London. The first three were successful, and Dr. Smith has also had great success. The objection of J. B. Brown to the method is based on the unfortunate results in his hands following its use. He appears to lean towards the actual cautery, which is doubtless, after the method of Rogers, the least objectionable.

The selection of suitable cases, their preparation previous to operating, together with the most strict attention to the after-treatment, meeting vigorously and promptly every symptom that may arise having a dangerous tendency, has without doubt a great influence on the successful results in ovariotomy.

To Dr. Fisk my thanks are due for the skilful and thorough manner in which he administered the anæsthetic. To Drs. Seely and Donner I am also under obligations for their valuable assistance during the operation, and in an especial manner to the latter gentleman for the interest he manifested throughout the after-treatment of the case.

Original Lectures.

ON CHOLERA.

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Lecture VI.

The Portability of Cholera—Can Cholera be Excluded by Quarantine?—Will the Disease appear here this Summer?—The Circumstances which Increase the Fatality of Cholera—When Epidemic, the Disease is produced by a Special Miasm—The Time of Day when the attack begins.

I have yet a few words more to say, gentlemen, in regard to the portability of the poison of cholera. I had stated to you how it first arrived upon our shores, and was describing to you the manner in which the second great advent occurred. The Swanton reached New Orleans on the 11th day of December. On the 13th the first case of cholera occurred in the city. During the remainder of the month there were eight hundred and sixty-three deaths from the disease then imported. In January there were seven hundred and three deaths; in February one hundred and eighty-seven; in March seven hundred and ten; in April three hundred and ninety-two; in May four hundred and fifty; in June two thousand five hundred and thirty-three; in July twenty-one; in August one.

After June it rapidly subsided. In the meantime it had ascended the great river that passes New Orleans, and had appeared in St. Louis on the fifth of January, attacking at first, however, only the newly arrived emigrants. Thus it was fairly introduced into that part

of our country. At the point of attack on the Eastern coast, as I have said, it ceased after one month of epidemic prevalence at the Quarantine of New York. But the next spring, ships arrived bringing emigrants affected with the same disease, and it reappeared as an epidemic on the same ground; and on the 11th of May the first case occurred in this city. It then became epidemic, followed its usual course, and subsided in the autumn; spreading, however, from New York pretty directly to the larger cities on the great lines of travel—Troy, Albany, Utica, Buffalo, Chicago, and others.

In 1854 its history was analogous. As I have already told you, a ship from Hamburg, then an infected port, carrying German emigrants, on the 22d of August, 1853, brought the disease to Liverpool. The same thing occurred on the Eastern coast a few days later, and it became epidemic in these places, and soon after in various towns in the northern part of England and in Scotland, prevailing during the whole winter and spring, reserving, however, its greatest violence for the following summer. In the autumn of 1853 ships from infected ports arrived in great numbers in the harbor of New York, bringing emigrants affected with this disease. Indeed it is reported for this port alone, that on board of twenty-eight ships, arriving in the month of November, one thousand one hundred and forty-one persons had died of cholera. In fact, ships bringing this unwelcome freight continued to arrive during the winter and spring. But the first appearance of cholera in the Northern division of the United States was not in New York; it was not even on Staten Island; but it was in Chicago, in the latter part of April, 1854. It broke out there among the recently arrived emigrants, continued to be mild until June, when it was declared epidemic. On the 16th of May the same class of persons, recently arrived emigrants, were seized with the disease in Detroit; and still it was not in New York. During the whole month of May of this year there was but one death from cholera in this city. The epidemic of that year dates from the 14th of June. Then, in Chicago and in Detroit, the outbreak of the disease preceded its outbreak here; and why? Those places are in the principal line of emigrant travel; the emigrants passed through New York, to be sure, but they were in good health at that time. They passed on to those cities, and were there seized with the disease, although cholera had not visited either of the cities since 1849. Why should emigrants coming from the infected ports of Europe in infected vessels be attacked, to the exclusion of other persons? Plainly, to my mind, because they carried about with them, in clothing or baggage, a poison capable of regenerating itself and spreading abroad an influence that in the warm months produced a general epidemic.

An emigrant ship from Liverpool in 1843, bound for New Orleans, touched at the Island of Nevis in the West Indies. Her passengers were suffering with cholera, and it was not long before the whole island was affected with the disease. During the past year a ship similarly affected is reported to have touched at Guadaloupe; and since then the cholera has been prevailing in that island.

Now, all this goes to the point of showing that cholera can be transported. It is true that every chapter of this history taken alone, may be claimed as proof of contagion; yet the facts none the less prove its transportability, and the transported thing may as well be, and on previous showing probably is, a miasm. Whichever of these views you entertain, this transportability of the disease, it seems to me, is perfectly demonstrated. In this country there are a few, and only a few, who doubt it.

Then upon this comes the question—Can it be excluded by quarantine? The general conviction in Europe seems to be that quarantines are of no service. Quarantines, for the most part, as they have been enforced there, have not prevented the invasion of the disease, unless perhaps one little town be regarded as an exception. There is, on a neck of land made by a bend in the Volga, a settlement of Moravians that has been for a great while the admiration of all travellers for its neatness, perfect cleanliness, and for the good habits of the people. When the cholera has marched up the Volga, assailing almost every town in three several epidemics, this clean little Moravian Serepta has been left untouched. It is said, to be sure, in Copland's dictionary, that the authorities preserved a strict quarantine, and admitted nothing that could bring the disease to them; but whether it was from quarantine or from cleanliness, they seem to have escaped entirely. In its other relations quarantine seems not to have been effectual; but is it not plain, from the history I have given you of the several importations of the disease into this country, and into England, Scotland, Ireland, Nevis, and Guadaloupe, that if passengers and goods whose admission into these countries and islands was coincident with the outbreak of cholera could have been excluded or kept at a sufficient distance, the disease itself might have been excluded also? It does not seem to me that the question of quarantine is to be abruptly decided in the negative. Whatever may be said of the failures in Europe, whether they have arisen from incomplete restrictions and impracticability, or from the epidemic constitution of the atmosphere, or the admission of diarrhœa while cholera was excluded—here, far away from the sources of the disease, the great ocean intervening, at a distance that the miasm cannot reach, the rule may well be reversed. Experience has fully shown that as in armies, so in ships, the disease has a limited existence. It has repeatedly been brought into our harbor when it has not invaded our city. It may even become epidemic at the Quarantine Hospital, and the city escape. I have already called your attention to two instances of this occurrence. It appears from the *Report on Cholera of the Council of Hygiene and Public Health* (Citizens' Association), that there have been at least *fourteen* such epidemics within the old Quarantine inclosure, and it is well known that the city has been visited but four times. There have been then ten epidemics at that station which did not extend beyond its wall, or at least beyond the shores of the island on which that institution is situated. "Ten of these fourteen epidemics," the writer says, "unquestionably depended on cholera patients from ships, and in six instances at a time when there was no cholera upon our Atlantic coast." Can it be said then that quarantine, even in the slipshod and inadequate manner in which it has for the most part been enforced, has been a failure here? For it will hardly be claimed, such is the attraction of cholera towards large cities, that on these occasions the atmosphere of New York was free from those certain elements which are susceptible of poisonous transformation under the influence of the cholera poison, when at a distance of only six miles in the open country those elements demonstrated their presence in violent epidemics. Yellow fever has probably been a hundred times confined to our harbor, when it has been brought here in ships, since its last epidemic prevalence in 1822; and if the virus of cholera poison is a miasm, as that of yellow fever is believed to be, it ought to be subject equally to exclusion by the same means. If, indeed, the disease is propagated by the discharges unchanged, or fermented, or combined with telluric agencies, all the more should it be subject to exclusion by force of iso-

lation, time, disinfectants, and sea-water. It has already had a success at this port which of itself goes far to disprove the doctrine that the malady is propagated by an atmospheric constitution alone. Quarantine, I repeat, has not been a failure in this country. Its rigid enforcement entails much personal suffering among passengers, and often heavy losses on property; and for those reasons it is often so relaxed as to be ineffectual. But I fully believe that, with the proper agencies and accommodations which it is notorious the port of New York now wofully lacks, the pestilence could be excluded in its approaches from the sea, for ever. If this is true of New York, it is true of every port in the country; and if it is true, as I believe it is, that the disease has never visited this side of the Atlantic except by the aid of importation, this would amount to perpetual exclusion. Amidst contending interests, it may be sometimes difficult to decide what the precise duty of the authorities may be in those matters. I have given you the facts, and yet you must form your own opinion as to the value of quarantine. If it is possible to ascertain whether the poison can be transported by the wind, or in the air—and if so, how far—and in that way extend its ravages, it would aid in deciding the distance at which quarantine rules should be enforced.

At this point, perhaps, as well as at any other, I can answer a question frequently asked me: "Do you expect the cholera will appear in this city the next spring or summer?" The fact that it has prevailed here in former years after it has prevailed in Europe leads to the conjecture that it will reappear. But there are certain important points of difference in the epidemics that have reached us and that now existing in Europe. In other instances, it has been lingering in commercial towns in Europe during the whole winter. It did not wait to spring up anew in the year in which it visited us; but it affected those towns the autumn or even the summer before, and continued somewhere within reach of commerce. The present winter we hear nothing of these occurrences; we do not know (March 2d) that there is a single case in London, or Liverpool, or Hamburg, or Havre; we do not know* that there is a single case in any seaport in the whole of Europe at this moment. Again, the visitations that have reached this country, and became epidemic, have been progressive uniformly from the central portions of India, and their progress has been regularly traced. The first began, as you have been already informed, in 1817, and pursued its course very slowly, stopping at Astrachan for a period of seven years, and then renewing its march, or rather repeating and extending it. The second began in 1844, in the delta of the Ganges, gradually extended westward, and reached us, we may say, perhaps in the autumn of 1848, or at any rate in the spring of 1849. Its progress was northward as well as westward. In each instance it invaded the Russian and German towns on its way, including Hamburg. It has reached England more frequently from Hamburg than from any other port. The third general epidemic is found at Bussorah, and also in Bohemia, in 1851; at Bagdad and in Poland in 1852, reaching St. Petersburg in October of that year. It prevailed extensively in northern Europe in 1853, visiting Hamburg on the 28th of July and Liverpool the 22d of August, still approaching by the northern route. This year its progress has been different. The first we hear of it is among the caravans of pilgrims from Mecca moving westward, and we are not informed that it began in the delta of the Ganges, or even in India. All we at present know is, that it prevailed at Mecca, and was by the pilgrims brought to Egypt, and from Egypt spread to Turkey, and various ports and places on the Mediterranean, and connected waters. By way of Marseilles, which was pretty severely visited, it reached Paris. It did not become epidemic in England. A few cases were reported as occurring at Southampton, in the autumn, but it has not yet visited any other part of England so far as we know. In these respects there is certainly a difference in the history of the diseases that have reached us and the one that has not. The shortest period in which it has thus far travelled from Asia to New York is three years; the disease we now fear is yet hardly twelve months old. Again, in two instances in which it became epidemic in New York, and so spread through the country, it was brought to Staten Island, and prevailed there as a local epidemic during the autumn or winter preceding its outbreak in the city. Now, we do not know that at Staten Island, or in any place where cholera patients have been brought, there has been any extension of the disease from new generation of the matter that produces it. True, the Atlanta brought the cholera into the harbor, and her sick were treated on the hospital ship in the lower bay. The patients who were detained on the ship, some of them sickened, but it did not spread to any point on the land.* Now, then, the analogy between the former epidemics and this that has visited Europe, you observe does not hold; and I should hardly expect that it will reach this country at all, unless it comes from English, or German, or French ports, or places from which emigrants reach them; and, as I said before, we have no knowledge that the disease prevails in any of those places.† It did not, as on two previous occasions, make a lodgment in New Orleans the autumn or winter before it appeared as a wide-spread epidemic in this country. The argument, then, that it will visit us, from the history of the epidemics that have prevailed, is not complete. In referring to the regions which, if infected, are most likely to send the disease to our shores, I have omitted those that are comparatively distant. The cholera on shipboard does not often continue beyond thirty or forty days. On board the English transport-ship Apollo, in 1849, it remained while at sea fifty-four days, but after the thirty-fifth day there was only a case "at intervals." Ships do not often arrive at this port in which the disease has exhausted itself; but New Orleans is familiar with such facts. In 1848 two emigrant ships from Hamburg had cholera at sea, and entered at New Orleans in a healthy condition. But to return. If there should be a new outbreak of the disease in ports of Europe that are in constant intercourse with this country, or in regions from which there is immigration, the chances are that it will be brought here during the summer. If it does not occur in those ports or places, it seems to me we have a very good chance of escaping it. It is true it has been brought to Guadaloupe, in the West Indies. Whether it will spread to other islands in more immediate intercourse with this city, and so be brought here, we cannot tell.

I turn now to some other considerations regarding the disease—those circumstances which increase its fatality. Among these stand foremost what are called the conditions of insalubrity, the accumulation of filth, the neglect of privies and cesspools, the saturation of ground with materials thrown from houses; in general, the absence of cleanliness. Whatever the cause of cholera may be, there is a universal assent to the proposition that influences like these are pregnant with death, that they increase the fatality, and increase the liability of

* At the time this statement was made it was not known, even to the profession in the city, that there was a little outbreak of the disease at the emigrants' hospital on Ward's Island last year, after the arrival of the infected ship.

† At a later date it became known here that cholera had wintered in some of the interior German towns, and on the western coast of France, having extended from Paris.

any particular locality to this disease. Instances could be multiplied without number that would illustrate it, but this will hardly be necessary; still, I may cite to you a single instance that seems to me quite striking. Dr. Houston, in the report of cholera as it occurred in the city of Wheeling, which I have already referred to, makes the following statement. The disease appeared in the latter part of 1832 in this town; a few deaths occurred, and then it ceased. On and after May 15th of the year following, some cases occurred, chiefly among the poor and persons of bad habits, about a place in the town called Market Square. During the winter Market Square had been neglected; filth of every sort had accumulated there, and the sweepings of the market had been mixed with outside accumulations, and the sun and rain had been doing their work upon this morbific mass. At length, after cholera appeared, the authorities came to the conclusion to remove it. It was all raked up into heaps, and portion after portion removed to a distance of two blocks and the width of one street, and there temporarily left upon the river bank. The wind was blowing from over this heap of filth directly towards the most populous part of the town. Between midnight and the morning of the next day every member of a family that lived in the house nearest to this point was attacked with cholera, and adjoining houses were directly attacked. In a few days the whole of the region, including Market Square, was the site of great mortality. Dr. Houston has no doubt that the mortality was increased materially by the mode in which this filth was disposed of. Perhaps another instance may illustrate the same thing, and enable you to remember it better. At Wakefield, England, stand three prisons in one inclosure. One of these, the old prison, stands close upon a sluggish stream, upon a perfectly flat piece of ground, the drains running under the building; and the water from the sluggish stream setting back through these drains, infiltrated the ground underneath. The privies were in rooms close to those frequented by the prisoners, and having free opening into them, the house is badly ventilated and badly warmed. The other prisons in the same neighborhood were in a good sanitary condition; the drains were outside the building, and well constructed, and the houses were built with a view to ventilation and warmth. The diarrhœa appeared, and affected more or less all the prisons; but cholera visited this old prison, but did not enter the others. Now, it seems from facts like these (and they can be cited in great numbers), that whatever the cause of cholera may be, it is in some manner intensified by emanations from decomposing organic matters and from unclean places; yet it is remarkable that a great many towns full of filth and all uncleanness escape entirely, or even with a very few cases, while neighboring places, in a similar condition, are heavily visited. It is not, then, filth alone that causes the disease. Whether there is ever anything in the elements of such decomposing materials that can combine with other constituents, and form the cholera poison, nobody can say; but the great practical fact remains that, in a large majority of cases, this disease does visit most severely those parts of towns and those places in the country where least attention is paid to general, domestic, and personal cleanliness, and where the people are the most abandoned.

Ventilation is, doubtless, an important element in protection from cholera; and crowding, or the bad air resulting from crowding many persons together in the same apartment or building, is doubtless a potent agent in increasing its mortality. Thousands of illustrations might be produced, but one will suffice. Dr. Hanbury Smith, who is now resident with us, but who was formerly of Cincinnati, states that, in one frame building there lived thirty-three persons; that eight of these were boarders, who occupied the four best rooms in the building; the remaining twenty-five were crowded into small rooms, five to eight in each room. Cholera attacked the inmates of this house, and of the twenty-five, twenty-three died; but of the eight boarders who occupied rooms of a larger size, not one was attacked, though they spent their time in nursing and taking care of the sick in the same house. This is certainly an unusual penalty to pay for breathing vitiated air; but tenement-houses, where often the volume of air allowed to each person does not exceed two hundred cubic feet, while one thousand feet is the least allowance that is tolerated in a well-regulated hospital, and this only with thorough ventilation, everybody knows are chosen homes of cholera.

The water that is used for drinking is probably one of the agents that increase the mortality of cholera, when it is impure. The severity with which this disease has uniformly visited the city of Paris would seem to be an illustration of this fact. The water of Paris is laxative upon strangers. That taken from the Seine is impure at all times. The striking differences in cholera mortality in different sections of London corresponding with the different sources of water supply, cited in support of Dr. Snow's theory, seem really to depend, at least in part, on the varying qualities of the water used in drinking. The severe prevalence of the disease in some of our western cities is probably to be ascribed to the same fact. The water of the Mississippi Valley produces the same effect upon strangers as the water of Paris. Not that there is in these waters any special poison; but, during the prevalence of cholera, it is generally acknowledged that whatever causes irritation of the bowels, predisposes to the disease. As a contrary fact, you will find quoted by Dr. Watson an account of two institutions in the midst of an unhealthy portion of London, where good water is obtained from Artesian wells, which were sunk before the first occurrence of cholera. In the three epidemics that have occurred in London, the inmates of these institutions, Bethlehem Hospital and House of Occupation, numbering about seven hundred, have escaped entirely, "although the disease has prevailed extensively in the parish and in the streets in the immediate vicinity." Yet it cannot be denied that cholera has visited, with considerable severity, towns and villages that are supplied with wholesome water.

It is believed that elevation has some influence on the prevalence, if not upon the mortality of this disease. Dr. Gull shows from the Registrar-General's Reports, that the higher parts of London were the parts least affected; not that there was a uniform and regular rate of mortality in proportion to the level, but, as a general fact, the points of London most elevated were the parts most free from the disease. It must, however, be taken into consideration that in London, as in almost every city, the higher portions are occupied by a better population, and are the parts least crowded and least filthy. In certain places, as in Southampton, cholera has been severe in the highest parts of the town; but the reports state that these parts were inhabited by poor people, who paid little attention to cleanliness, and that the buildings were in a filthy condition. In Paris, the mortality was least on the lower levels as a rule, and the richer people of Paris live on these lower levels. It does not seem, then, that elevation alone will prevent cholera, if other circumstances favoring it be neglected. Then, too, in the broader view of its prevalence, looking over the whole of the countries visited by it, mountainous regions are those which most often escape. In such regions, the population is usually thin and scatter-

ed, the villages are small, and cities are rarely found. In England, a very large proportion of the island has never been visited by cholera; but it is not the commercial towns that escape; it is the inland positions, and the elevated positions where the population is sparse. The same thing is true of our own country; there are large regions that have not been visited at all. I doubt whether there has ever been a case of cholera in Vermont, except on the shores of Lake Champlain, which is one of the highways of travel. In New Hampshire, I doubt whether there has been any cholera, except perhaps at its seaport. In the interior of Massachusetts, cholera is all but unknown. In the town of Pittsfield, I can testify to the occurrence of three cases; but it did not become epidemic. Still cholera can ascend to considerable heights. Dr. Nicholas Parker states that it occurred at Landor, eight thousand feet above the level of the sea. In 1854 it occurred at Mexico, seven thousand feet above the sea. Mere elevation, then, does not furnish complete protection.

Another question: Can the poison of this disease be blown about by the winds? The fact that I cited to you a little time ago, that Dr. Bryson found the cholera upon an English fleet while the ships were several miles from shore, and before any intercourse had taken place, would seem to imply that the wind can be a carrier of the poison. Instances are quoted over and over of ships lying in the harbors of infected towns, not being affected until the wind blew off from the shore, or from the direction of another ship that was infected. It may be true that the poison can be carried a certain limited distance; but analogy urges the improbability of its being carried "several miles" before it would be so diffused and diluted as to lose its potency. The idea founded on Dr. Parkes' suggestion, that in India the wind carried the poison ninety miles to fall upon Madras; and the notion of Dr. Biggs, that it was wafted from Belfast to Armagh in Ireland, a distance of at least thirty miles, while in each case it is understood that the intermediate places were not touched by it—are little better than absurd. The striking fact in the cases of the *Fairlie* and *Coutts*, anchored in the harbor of Madras, was that in the first, the men who worked on deck and those who slept on the landward side of the ship, were those who principally suffered; while in the *Coutts*, of twenty-three attacked, twenty-two slept on the same landward side. In each case, the landward was the windward side. But while ascribing this disease to the agency of the wind, there is no attempt to exclude the influences of intercourse with the infected shore, the bringing on board supplies, etc. Then, if any agency of the wind is admitted, the currents would pass freely through the ships from windward to leeward ports; so that it is difficult to understand how the windward men were more exposed. The supposition that the ships were themselves infected, and that local causes were producing the disease, is more tenable. Indeed, I have met with no well observed facts that demonstrate the power of aerial currents to transport the cholera poison even short distances. That they may do this is more an inference from the supposed nature of the poison than from any reliable observations. In cities it is difficult to trace any influence from the winds. The absence of wind has been found unfavorable. A calm and stagnant air seemed to increase the mortality. The question whether the poison can be carried any considerable distance upon the wind, is then, as yet, unsettled. In India, while the disease was advancing from its original home towards Bombay, it made its journey in the face of a monsoon blowing steadily day and night in the opposite direction. It has marched down the western shore of the Bay of Bengal in the face of the same wind, and it is reported that it advanced more rapidly in these instances than it did while moving in a direction which concurred with the course of the wind.

Search has been made to ascertain whether abundance or scantiness of rain influences the disease, and the result has been negative. Inquiries have been made to learn whether the weight of the air, as indicated by the barometer, exercises any important influence over it; the answer again is in the negative; but there can be little doubt that localities that are low and damp, grounds especially that are not susceptible of drainage, independently of removable filth, are more exposed to cholera than dryer sites, although many such undrained grounds escape entirely. There is a general concurrence in the opinion that the regions where fever and ague prevails, are the regions least likely to escape the cholera, other things being equal. It is a general belief that just those circumstances which concur to render a locality especially liable to typhus and typhoid fevers will make a visit from cholera certain when it is epidemic. But Mr. Simon, whose official position will guarantee the correctness of his statement, says: "It is unquestionably true, that many habitual seats of fever were visited by cholera; on the other hand, many of the worst *fever nests* in the metropolis, London, were unaffected by it." In this connexion I may state, that repeatedly, when cholera has been epidemic at the quarantine hospital on Staten Island, it has been remarkably fatal among those who had, or were recovering from typhoid fever.

A disease having the prominent features of Asiatic cholera, and which has not been distinguished from that affection, has been often found in this city since the first epidemic in 1832. Previous to that year the word cholera, representing a disease different from cholera-morbus or cholera-infantum, does not occur in the mortuary records. Between that year and 1860 it is excluded only eleven times. In the other seventeen years of that period, with the exception of 1834, 1849, and 1854, the disease attracted no attention. People ate, and drank, and toiled as usual, and had no thought of any unusual danger to life. In 1852, the number of deaths ascribed to cholera was three hundred and seventy-four, yet the disease was considered epidemic. In 1850, there were fifty-seven deaths from the same disease; in 1853, thirty-three; in 1855, nineteen; in 1860, seventeen; in 1844, fourteen; in 1857, eleven; in 1859, 1856, 1845, and 1858, nine, eight, six, and five; in 1839 and 1840, two and one respectively. In thirteen years, from 1848 to 1860 inclusive, cholera occurred every year but one. This period included two epidemic years. Whether this sporadic disease is what is now denominated "sceptic cholera," or whether it is cholera-morbus in an aggravated form, we may not now be able to determine. If neither of these, and there is little probability that cholera arising from decomposing organic matter would be frequently mistaken for the Asiatic variety, then, relying on the correctness of these returns, the causes are sometimes strictly local, or perhaps strictly personal, when it occurs as a sporadic affection.

Having examined, as well as the time will allow, some of the principles that govern the production and spread of this disease, we turn again to the disease itself. I repeat to you that when it is epidemic, I believe it is produced by a special miasm which can be generated by zymotic or catalytic agency in any air, when certain constituents necessary to its composition are present; and that if the poison be brought to an atmosphere that does not possess those elements, the disease will affect only those who inbreathe the imported poison; and that it is not the *person* that brings the poison, but the cloth-

ing, baggage, or merchandise capable of acting the part of *fomites*. Dr. Baly suggests that the poison is something adhesive, something that can attach itself to garments and baggage, and merchandise. I do not know how that may be; but all similar poisons remain for a time apparently inactive in the system, after their entrance into the body. Then the question comes, how long is the period of incubation? How long does the poison remain in the system before it manifests itself in symptoms? You have already some data upon which to answer this question. You remember the account given by Dr. Houston of the physician who came to Wheeling during the prevalence of cholera in that city, and returning towards his home the same day, reached a healthy village at night, and ten hours from exposure was attacked, and died the next day. This seems to imply that the period of incubation may frequently be very short. Dr. Baly refers to twelve analogous cases—that is, instances in which persons have spent a day or a few hours in infected places, and were afterwards attacked. "In all these, the interval between the exposure to infection and the attack was under six days, and in one-half of them it was under three days." The German authorities speak of a case which they regard as authentic, in which the period from the exposure to the manifestations of the disease, was twenty-one days. That the period is often very short, only a few hours, is shown by a variety of facts; and that its duration varies greatly, is equally shown; and what may be its utmost limit has not yet been ascertained. But there are sufficient grounds for the belief that the period does not *usually* exceed two or three days.

In regard to the time of day when the attack begins, Dr. Hutchinson deduced from facts noted by himself, that the larger number were seized during the morning hours. Thus in seventy-nine cases, fifty-five were attacked between 1 A.M. and 12 M., and twenty-four between 1 P.M. and 12 at night. Of the fifty-five morning attacks, ten, or two and a half the hour, occurred between midnight and 4 A.M., while forty-five, or five and five-eighths per hour, occurred between 5 A.M. and 12 M. It would seem, then, from this report, that the period of greatest liability to attack, not of diarrhœa, but of cholera symptoms, is between four in the morning and noon. Dr. Hutchinson recorded also the time of death in some of his cases. Of seventy-three persons, twenty-seven died between one in the morning and noon; forty-six between noon and midnight. The same observer notes also the duration of the disease in certain of his cases. He found, for example, in forty-one cases not fatal, that the average duration was 54.83 hours, or about two days and seven hours. The shortest case was sixteen hours, and the longest one fourteen days; the latter doubtless having some complications. Of fifty-three fatal cases, the average duration was forty-eight hours; the shortest case was four hours, and the longest one seventeen days.

Ozone and Antozone.—The theory that ozone and antozone are two opposite electrical states of oxygen, and that ordinary oxygen is composed of the two opponents balancing each other, has led to the theory that all matter is in this condition, and several important observations have been made which go to sustain the view.

The State Woman's Hospital.—The corner-stone of this institution was laid with appropriate ceremony by Mr. J. W. Beekman, May 23d, at 3 P.M. Addresses were delivered by Messrs. Beekman, E. C. Benedict, and Erastus Brooks, to a well pleased audience.

Progress of Medical Science.

Rhigolene.—Dr. Henry J. Bigelow (*Boston Medical and Surgical Journal*) has given the name Rhigolene (ριγος, extreme cold) as a convenient one to designate a petroleum naphtha boiling at 70° F. It is a hydrocarbon, wholly destitute of oxygen, and is the lightest of all known liquids, having a specific gravity of .0625. It occurred to Dr. Bigelow, on hearing of the experiments of Mr. Richardson, of London, that this hydrocarbon might be more sure to congeal the tissues than the ether now commonly used. He accordingly had it manufactured, and on trial with the "spray-producer," the agent depressed the mercury to 19° below zero, and froze the skin hard in five or ten seconds. He does not think Richardson's instrument necessary for its use, and says:

"I have for convenience used a glass phial, through the cork of which passes a metal tube for the fluid, the air-tube being outside, and bent at its extremity so as to meet the fluid-tube at right angles, at some distance from the neck of the bottle. Air is not admitted to the bottle, as in Mr. Richardson's apparatus, the vapor of the rhigolene generated by the warmth of the hand applied externally being sufficient to prevent a vacuum and to insure its free delivery; 15° below zero is easily produced by this apparatus. The bottle, when not in use, should be kept tightly corked, a precaution by no means superfluous, as the liquid readily loses its more volatile parts by evaporation, leaving a denser and consequently less efficient residue. In this, and in several more expensive forms of apparatus in metal, both with and without the concentric tubes, I have found the sizes of 72 and 78 of Stubs's steel wire-gauge to work well for the air and fluid orifices respectively; and it may be added that metal points reduced to sharp edges are preferable to glass, which, by its non-conducting properties, allows the orifices to become obstructed by frozen aqueous vapor. Freezing by rhigolene is far more sure than by ether, as suggested by Mr. Richardson, inasmuch as common ether, boiling only at about 96° instead of 70°, often fails to produce an adequate degree of cold. The rhigolene is more convenient and more easily controlled than the freezing mixtures hitherto employed. Being quick in its action, inexpensive, and comparatively odorless, it will supersede general or local anæsthesia by ether or chloroform for small operations and in private houses."

The Water Supply of London.—In the early time, even of our metropolis, there was no lack of good waters and little labor in getting it. A few famous springs, conduits, or pumps, and best of all, the great and then unpolluted river, yielded vastly more than Londoners could need or desire. But in the course of years our rapidly-augmenting population threatens to drink up the springs, exhaust the pumps, and diminish the very river, which forms a highway for our commerce, and has borne wealth to our enormous metropolis. We have this great and perplexing problem to solve:—How are the growing and gathering millions of inhabitants of England and Wales to be provided with a sufficient quantity of pure and soft water? We know that last year the metropolis suffered greatly in particular districts. An observant clergyman who has been conversant with the Thames for more than forty years, has always given this advice: 'Be sure that you economize the water, for there are many towns in England now growing, which appear to me to have ruin staring them

in the face, for the want of a proper supply of water.' Not only does every additional person want a certain quantity, but every additional individual tends to require more than any of his predecessors. The diffusion of care and cleanliness of body makes one man use perhaps twice as much water as any of his ancestors; and the more confidently men believe that cleanliness is next to godliness, the more ample will be their ablutions. A very short time ago the amount of water deemed necessary, per individual, was far less than at present. In the case of *Glasgow*, we find that in 1838, the quantity of water used per head per diem, over the whole population, was 26 gallons. In 1845, the quantity rose to 30 gallons per day; in 1852 it increased to 35 gallons per head in some parts of the city, and 38 in others. Now the amount delivered is 45 gallons per head per diem. The entire eight companies at present jointly pour every day into the metropolis and its immediate suburbs, on an average, not much less than 100,000,000 gallons of water. In January last, they returned their daily average delivery as 26 gallons to each person (including manufactories). If we confine our attention to the superior residences of London and its suburbs, and point to our bath-rooms and high service water arrangements as fair specimens of the improved supply of water in our day, we shall grossly deceive ourselves by selecting the very best, and ignoring the worst. The deficiency of water in many, if not most of the poorest and most thickly-peopled districts in the metropolis, is notorious, or ought to be made notorious.

The evidence of Dr. Horace Jeaffreson is thus presented (late Medical Officer to the Fever Hospital):—'Guided by my knowledge of the main centres of the typhus infection, I have lately made, as closely as it was possible for one person to do, a house-to-house inspection of the worst quarters of Lambeth, St. Giles, etc. The water supply is extremely deficient. Those houses the best supplied have each a butt, holding about 80 gallons, into which water flows from a stand-pipe, for from ten minutes to half an hour each day, and is supposed to supply the wants of twenty persons for cooking, washing persons, house, and linen, and for the rinsing down of the water-closet. At other times a larger butt, but in relation to the number of persons proportionately smaller, supplies a whole court of ten or more three-roomed houses, which have no back-yards, and a population of one hundred and fifty people—members of thirty different families. On Sundays even this supply is absent, and in many houses water for the Sunday cooking has to be borrowed. More than nine-tenths of these water-butts have no covers, and fully half are placed so as to catch the drippings from the foul eaves of the houses, and are lined internally with scum and slimy vegetation. Several two-roomed houses, containing sixty-four inhabitants, are thus supplied:—A half-inch pipe projects a few inches through the wall of the court, so that any small can or tub may be placed under it on the soppy grounds by such of the inhabitants as possess them. The water flows for twenty minutes only in the course of the day.' We fully believe that similar conditions would be found to prevail in nearly all the similar districts of London, and sometimes in places where they would not be expected. The entire metropolitan population is now 3,222,717 souls. About the commencement of the next century, it will be between 5,000,000 and 6,000,000; 220,000,000 gallons daily of water must be at our command for the future metropolis. Apart from dry seasons, there is reason to think that, from various causes, our great river is lessening in volume. Even supposing that a sufficient quantity of water could be procured from the Thames, would such water be desirable and safely drinkable? Although the Upper Thames is not so disgracefully foul as some of our other principal rivers, yet as compared with any standard of pure drinking-water it cannot be commended. A vast and increasing quantity of sewage falls into it from the adjacent towns. Gigantic efforts are being made to purify the water, but the fifty-six towns on the Upper Thames are to some extent rendering the great undertaking nugatory. They are sending their sewage into the river above its tidal influence, and fouling at one end, while the Board of Works are purifying at the other. Particularizing the several water companies in 1854, Dr. R. D. Thomson said, 'Of all these waters it may be generally premised that they were characterized by the formation of a deposit, on standing, consisting principally of vegetable organisms, mixed with abundance of animal life. The conclusion seems inevitable that the waters of the Thames, even when purified as we may expect by the most delicate and refined adaptations of modern mechanism, still retain in their chemical constitution a condition which renders them fertile creative sources of vegetable and animal life.' Dr. Hassal says, 'I entertain also the same opinion that river waters in general are very unfit for drinking purposes, and for these reasons. First, rivers are required as the common sewers of the places through which they pass, and are exposed to a great variety of sources of contamination. There is another reason—river water contains organic matter.' The conclusion of the Committee for Scientific Inquiries, in relation to the cholera epidemic in 1854, was that the waters supplied by the different metropolitan water companies, both during the period when the cholera prevailed and subsequently, 'were far from possessing the requisite purity in consequence of the large quantity of organic matter contained in them.'

One passage of the same committee's report says: 'The present state of scientific knowledge does not justify dogmatic assertions on this subject, but there are many reasons for believing, in respect not only of cholera, but of many kindred diseases, that the means and agencies of morbid infection stand in intimate relation to decaying animal products within and without the body; and the slightest taint of organic decomposition within the drinking-water of a large population therefore constitutes a danger which we cannot but regard with as much alarm as disgust.' In the visitation of London by the cholera in 1853–4, it was clearly ascertained that a very large population drinking foul water suffered from the epidemic more than three times as much as a similar population drinking clearer water.' After analysing the different schemes for supplying London with water, the writer concludes: 'Clearly, then, we cannot rely upon the great river that flows over the chalk—the Thames—nor on the great reservoir that lies under the chalk; we must go further afield; great lakes or remote rivers, or the high grounds which form the first receptacle of the waters of heaven, yielding them unpolluted to the lower levels, and feeding the great rivers. This can be obtained from mountain ranges in North Wales, from which the river Severn is supplied. It requires no particular sagacity to foresee that the satisfaction of the exigencies of London primarily, and several other important towns secondarily, will become the great engineering problem of the day. Our great consolation is, that in this sea-girt isle, and with the copious rain-fall of some of our districts, there need be no irremediable deficiency. The mountains, the lakes, the unpolluted and many minor streams, are unfailing depositories of excellent water, if only our science, our toil, and our capital, are perseveringly directed towards them.'—*Condensed from the Edinburgh Review, April*, 1866.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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THE EXTENSION OF THE LECTURE TERM.

THE subject of medical education, although it must be confessed a somewhat hackneyed one, has not, by the ventilation which it has received, lost any of its importance. It still presents the most serious claims to our attention, and still invites a candid discussion of the means which should be adopted to bring about many much-needed reforms. It has been long enough conceded that if we would raise the standard of qualifications of those who are to practise our art, we should first settle the all-important question as to what shall constitute a thorough, substantial, and creditable medical education. Very much has already been said upon this subject; and although some good has been effected as the result, we are convinced that much remains to be done before the profession can satisfy itself of the fact that all the requirements of the case are duly met. Indeed, almost all are ready to acknowledge that a radical reform is now called for, and the profession are beginning to appreciate the means which should be adopted to bring about the end. In this connexion there are many matters which must in turn claim our attention. Foremost among these, and one which, perhaps, as a subject, lies at the very foundation of all reforms, is the manner in which medical instruction is now carried on in our colleges.

To discuss this matter with the fulness that it requires, would of necessity compel us to go over a good deal of ground, and would consume too much time and occupy too much space to do it justice in a single article. Leaving, however, for further comment, many other abuses in our college system, we propose at this time merely to offer a few remarks upon the importance of extending the period of our lecture seasons. The propriety of such a measure has been repeatedly considered; and although much difference of opinion on minor points has been expressed, the profession are to-day pretty well convinced of the necessity of it. The medical teachers, then, into whose hands it has now been placed for some definite action by the American Medical Association, can rest assured that any increase of time which they may recommend will be endorsed by their patrons.

We are perhaps not ready to imitate our academic schools in respect to the length of time required for study, although we are satisfied that we shall eventually have to come to it. But we cannot expect at present to make more than a beginning, and we should congratulate ourselves that such seems about being made.

Every one who has attended medical lectures appreciates the necessity of one of two things: either a decrease in the number of lectures given, or an extension of the time to profit by them. One argument that has been raised against the extension of the lecture term, is the increased outlay it would incur upon the student for living expenses. But why should not this same argument hold good with the literary seminaries, in which the vacations are short, and the term of study four years instead of three? The student taking the academic course has to submit to the regulations so far as regards the filling out of his time, or else he does not receive his degree. We are aware that many of our students may be too poor to meet even this extra demand upon their means; but to such we would offer the friendly advice to turn their attention to some other pursuit, which would sooner place them in comfortable circumstances.

If the lecture term be extended, the professor would be the gainer in increased opportunities for study and lecturing—would be able to go over more ground to more advantage to himself, and satisfaction to the student. The latter, instead of being crowded with six or seven lectures a day, would certainly be able to digest three or four.

When we contrast the present state of the student with what it might be in respect to the work allotted him, and the time spent for the performance of his tasks, we should be mortified at having this evil exist so long without the easy remedy proposed. The medical student of to-day, if he attempts at all to do his duty, performs an amount of labor, of self-denial, of almost privation, which at first sight appears incredible. We find him in the morning, for instance, punctually at the lecture at nine o'clock; he remains in attendance at the morning sessions until one P.M. An important operation is to be performed at some one of the hospitals at half-past one or two; he snatches a hasty meal, and hurries to the operating theatre, and finds that when the operation is finished, he has barely time to get to the college before the afternoon lectures commence. When these have concluded at six, we find him hurriedly walking to his boarding-place to get his supper, after which he must attend his private "quiz" at half-past seven in the evening. This generally lasts two hours, and when our student gets to his room he is expected by the exacting professors to *study* up the lectures of the day.

But, it may be asked, what time has the student for dissection? He must either be content to dissect during the holiday week, neglect other matters, or wait until after the course is finished, and pursue his anatomical studies in the spring, when the weather is warm, and when such work is peculiarly unpleasant, if not unhealthy. We are speaking now of the full-course student—of the student in his second or third year, during that part of his pupilage which is most important to him, and in which he has most need of time for study. That this picture is not overdrawn or too highly colored, can be attested by any who have availed themselves of instruction in any first-class medical college.

Let us suppose the lecture term to be increased. Can any one fail to acknowledge that the effect would be most beneficial upon the student, not only physically but mentally? Would he not then have time allotted him for studying up his text-books, following the lecturer while the lecture is still fresh in his mind; and would he not profit more by the bedside instruction offered him, than when he snatches an opportunity between times, and wearily tracks from bed to bed, with aching legs and empty stomach?

We commend to the attention of our readers the enterprise of Dr. J. M. Toner, of Washington, D. C., who proposes to issue, at as early a period as possible, a biographical dictionary of all deceased American physicians. Except Dr. Thacher's work, which presents us with a history of American Medical Institutions, besides the biographies of the earlier physicians of the country; and Dr. Williams's compilation of sketches, having for their subject the more prominent magnates of the profession, no publication of any pretensions, in this most attractive field of research, has lately appeared.

The intention on Dr. Toner's part, that the collection shall embrace some ten thousand names, will constitute a sufficient guarantee of the national character of the work, the value of which will be enhanced in proportion to the coöperation of relatives and friends of the deceased. Printed forms, we understand, will be furnished by Dr. Toner to correspondents desirous of communicating definite facts; vague, elaborate eulogies for a work of this kind, we presume, will be decidedly out of order. The enterprise deserves, and we hope will achieve, success.

In the present number we have been compelled, on account of the large quantity of material on hand, to crowd out many interesting contributions, which we hope to have an opportunity of presenting in our next. Among the articles which have been deferred, we may mention one by Dr. Brown-Séquard, one by Dr. H. R. Storer, and one by Dr. T. A. Emmet.

Reports of Societies.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

THIRD ANNUAL MEETING.

The Third Annual Meeting of this Society was held in Boston on the twelfth and thirteenth of June. The first session began at the Massachusetts Eye and Ear Infirmary at nine A.M. The President of the Society, Edward Delafield, M.D., of New York, called the meeting to order, and after the minutes of the preceding meeting, held in June, 1865, in New York, had been read by the Secretary, Henry D. Noyes, M.D., the regular business of the Society was proceeded with. Dr. B. Joy Jeffries, of Boston, presented the Report of the Committee on Bibliography, which was a translation of the brochure appended to *Zehender's Monatschrift*. The Report was referred to the Committee on Publication.

Committees on nomination of officers, choice of subject for discussion, and election of new members, were appointed.

Dr. H. B. Sands, of New York, read a paper narrating a case of sudden blindness in one eye, occurring in a young medical man. The patient was in excellent general health, of good habits. He discovered a mist over the eye one morning, having a distinct recollection of having used that eye for the purpose of making a microscopic examination the evening before. After an interesting and careful account of the immediate and successive ophthalmoscopic examinations, together with the presentation of sketches of the field of vision, in the case which had now terminated in atrophy of the optic nerve, Dr. Sands concluded, although he expressed his doubts as to the perfectness of the theory, that the original morbific process was due to hæmorrhage into the sheath of the optic nerve. The paper was briefly discussed by Drs. Agnew and Noyes.

Dr. E. Dyer read a paper giving an account of the *ante* and *post-mortem* examination of *Anton Probst*, the murderer, who was hung on the Friday before the meeting. The eyes were examined fifteen minutes before the execution, by means of a kerosene lamp. Immediately after he was cut down, the same lamp, with the ophthalmoscope, failed to illuminate the eye. An electric light was then used, which gave an illumination which Dr. Dyer had never seen equalled. Both lenses were found to be fractured and the right retina detached. The eyes were very placid; the pupils, the same as before the execution, moderately dilated. There was no hæmorrhage beneath the retina. The eyes were enucleated and the ophthalmoscopic examination verified.

Dr. J. S. Hildreth read a paper entitled, "Extracts from Observations on Anæsthesia of the Cornea, and radiating Fibres of the Iris." This paper consisted of the recital of several cases in which there was complete anæsthesia of the cornea, as evinced by the want of sensation on touching it, and of the iris by its inability to dilate. These symptoms were observed in cases of pannus and ulceration of the cornea. Dr. Hildreth treated the cases by performing Hancock's operation, the so-called division of the ciliary muscle, when, as he claimed, the anæsthesia of the cornea was immediately overcome and the iris dilated.

The paper induced a spirited discussion, which was carried on by Drs. Althof, Agnew, Holmes, Noyes, and Hildreth. Dr. Althof thought the symptoms narrated were those of glaucoma, and not of any newly discovered disease. Dr. Agnew proposed that an opportunity should be afforded by Dr. Hildreth, on what he regard-

ed as a type case, for the carrying out of the procedure, so that the subject might be investigated.

The Society then went into executive session.

SECOND DAY.

The Society met in the New City Hospital. Dr. G. A. Hay read a paper and gave a demonstration in reference to the refraction of rays from a single point impinging on a plate of plain glass, as in H. Helmholtz's ophthalmometer.

Dr. Derby read a paper on a more exact method of testing the Acuteness of Vision, in which he advocated the use of a steady light in a darkened room, instead of the employment of ordinary and varying daylight.

Dr. C. R. Agnew described a new method of bringing forward the rectus internus muscle in divergent squint. The method has the advantage of not burying the cornea in the dissected tissue which is brought forward. Two threads are passed through the muscle; one is united to the conjunctiva in or over the superior rectus, the other in the same position as to the inferior rectus.

Dr. H. D. Noyes read a paper on amblyopia produced by osmic acid, and some cases of sub-retinal effusion treated by puncture of the retina, according to Graefe's method.

Dr. B. Joy Jeffries then demonstrated the anatomy of the ciliary muscle, showing that Hancock's operation did not in fact divide circular fibres of this muscle, and therefore division of this muscle had nothing to do with the cure of glaucoma; that it was the relief of tension which might also be effected by an incision into the sclerotica. Drawings showing the comparative anatomy of the muscle were also shown. Dr. Jeffries also exhibited the lenses of various fishes, horse mackerel, etc., suspended by the suspensory ligament.

The Society then took a recess till 1½ P. M., when the subject for discussion, *Cataract*, was taken up. Statistics were presented by some of the members, and general remarks on the subject of extraction were made by Drs. Agnew, Holcomb, Holmes, Hildreth, Seely, Sands, Noyes, Williams, Dix, and Allin.

It was voted to continue the subject of cataract at the next session, and to meet at Niagara Falls on the second Tuesday of June, 1867.

The following gentlemen were unanimously elected officers of the Society:

President—Edward Delafield, M.D.; *Recording Secretary*—Henry D. Noyes, M.D.; *Corresponding Secretary*—H. Althof, M.D.

The by-laws were amended so as to admit of the election of a Vice-President; when Henry W. Williams, M.D., was unanimously elected Vice-President.

The following gentlemen were elected members of the Society:

Francis Delafield, M.D., of New York; A. F. Wadsworth, M.D., of Boston; H. L. Shaw, M.D., of Boston; Charles E. Rider, M.D., Rochester, N. Y.; John Green, M.D., St. Louis, Mo.; Bolling A. Pope, M.D., Memphis, Tenn. *Honorary*—Dr. C. Schireigge, of Berlin, Prussia.

The following members of the Society were present during its Sessions:

Boston—Haskett Derby, M.D., J. H. Dix, M.D., G. A. Hay, M.D., B. Joy Jeffries, M.D., ——. Sprague, M.D., H. W. Williams, M.D., C. R. Agnew, M.D. *New York*—H. Althof, M.D., C. M. Allin, M.D., F. J. Bumstead, M.D., Edward Delafield, M.D., William F. Holcomb, M.D., Henry D. Noyes, M.D., D. B. St. John Roosa, M.D., Henry B. Sands, M.D. *Albany*—C. A. Robertson, M.D. *Philadelphia*—E. Dyer, M.D. *Baltimore*—E. G. Loring, M.D. *Chicago*—E. L. Holmes, M.D., J. S. Hildreth, M.D. *Cincinnati*——. Seely, M.D.

The members from other cities were entertained by Dr. J. H. Dix in a charming way, at a reception held at his house on Tuesday evening, where very many of the Boston notables in the profession were present. On Wednesday evening the Society, by invitation of the Boston members, Dr. B. Joy Jeffries being Chairman of the Committee of Arrangements, sat down to a grand supper at "Parker's," after which the members separated, having enjoyed both the scientific and social parts of the third meeting of the American Ophthalmological Society perhaps more than the previous meetings.

NEW YORK ACADEMY OF MEDICINE.

Special Meeting, May 30, 1866.

Dr. James Anderson, President, in the Chair.

DISINFECTANTS.

Dr. Squibb, in his report upon "Disinfectants," after a statement of his belief that cleanliness and ventilation were *the only true disinfectants*, took up the consideration of the agencies of heat, or heat and motion, in the prophylaxis of disease. The experiments of Dr. Harris, who had, in his investigation of the laws which govern the propagation of yellow fever, resorted to the steaming of vessels and scalding of infected clothing, tended to prove that these means promised favorable results; still, according to Dr. Harris's opinion, they were not extensive enough to be conclusive. After heat, he would rank chlorine as the next most efficient of the special agents. Chlorinated lime, which gives off the gaseous chlorine, was the best and cheapest deodorizer as well as disinfectant; this, fortunately, was also in popular favor and use. Common quick-lime (pulverized), charcoal (pulverized), or a mixture of the two, were beneficial under certain conditions. A good smoking followed by a good whitewashing, was excellent, since in good smoke were present more or less suspended carbon, creasote, pyroligneous acid, etc. The last-mentioned method was particularly applicable in the case of stables and other like receptacles of filth. But in all instances much depended upon proper discrimination in the selection of materials specially adapted to the end in view. He recommended finely pulverized quick-lime, and the same intimately mixed with pulverized charcoal, to be constantly on hand among the armamentarium of Sanitary Boards; these could be conveniently issued to institutions in barrels.

Dr. Sayre moved that, inasmuch as the facts adduced in the report were of vital importance, the paper be referred to the Council of the Academy for early publication. Carried.

Dr. Harris thought that the experiments made by him, as alluded to in the report, were not extensive enough to be of scientific value. Mr. Newland, under the direction of Dr. Trench, had been conducting some experiments in Liverpool on a rather large scale for the past two years, and, in the course of his investigations, had carried the point of heat up to 303 degrees. He preferred to have the subject yet more thoroughly canvassed before committing himself to any conclusion.

VENTILATION.

Dr. Griscom offered his report upon the above subject, in which he strongly supported the claims of the *Archimedian Screw-Ventilator*, as furnishing what was long a desideratum in these contrivances—*a mechanical power*. He had practically tested the utility of the invention, and was well satisfied with the operation of the principle upon which it was based.

Dr. Stone said that this matter of practical ventila-

tion had proved quite an enigma to the Metropolitan Health Board; that owing to the faulty construction of the tenement-houses, their engineer was compelled to content himself with the occasional destruction of a window-sash, and the elevation of the doors three or four inches from the floor. He would inquire of Dr. Griscom, whether or not these ventilators were capable of being satisfactorily adapted to any aperture in a roof.

Dr. Griscom replied that he had one of these screw-ventilators adjusted to the roof of his own dwelling, in a position calculated to thoroughly test its value, and it had given ample satisfaction. A single puff of wind was all that was requisite to set the flanges in motion.

Dr. Squibb was of the opinion that the practical solution of the difficult problems as to *the when* and *the where* of the application of remedies for bad ventilation belonged to the engineers. As far as he understood the operation of the principle governing this *Archimedian Screw-Ventilator*, he thought there was a partial loss of power, and that to this charge *Espy's* and *Emerson's* ventilators were not liable. Any of them might give satisfaction for a time; but for his part, he did not favor any action of the Academy looking to an endorsement of these patented inventions, if for no other reason, on account of their tendency to assume their places among "the things that were."

Dr. Sayre referred to a meeting of physicians called at his instance, when a member of the old Health Board, convened for the discussion of this subject. He then demonstrated a plan by which currents of air might be mixed through the medium of a diaphragm.

Dr. Stone was of the impression that this principle, as applied in the case of the Park Bank in this city, had been tested and found to have been ineffectual.

Dr. Hamilton had found a certain contrivance very beautiful in theory; and when in charge of the Central Park hospital, had it, at a cost of five hundred dollars, applied to the chapel, which was held to be a model building for the purpose. It proved a complete failure. He was therefore opposed to hasty conclusions in matters of this kind.

Dr. Sayre thought that the present Health Board had facilities for testing these inventions which had never been enjoyed by any previous body; he would therefore suggest that the same be referred to them, for the purpose of being practically tested.

Dr. Stone replied that this idea of ample power was a popular error; that in thrusting these inventions, etc., upon property holders, the Board could be made legally liable for damages, and the cost of alterations in the event of a failure. The inquiry, "*Who will pay the bill?*" would everywhere greet them.

Dr. Griscom, in reply to Dr. Squibb, averred, that in *Espy's* ventilator the wind was received in but *one* direction; whereas in the invention recommended in his report, it was made available from *all* quarters. The *Archimedian Screw-Ventilator* had freed large manufactories of the vapor of steam, which had before rendered it difficult to distinguish objects at a reasonable distance from the observer; had caused steam to ascend from a pipe in a perpendicular line during conditions of the atmosphere in which the opposite condition had always been known; had readily drawn up newspapers with a string attached; and, notwithstanding theories, had been found capable of being turned by reflected wind. *Mott's* ventilator was constructed upon the principle of the circulation of the blood, and was a success as far as it went; but we needed something more, which has been here supplied, to wit, a mechanical power to lift up and carry forward. It was no part of his intention to seek the endorsement of the Academy for the invention; he merely aimed to present the principle in its proper bearings, and to stimulate investigations in a most interesting quarter.

The Academy then adjourned.

Stated Meeting, June 6, 1866.

Dr. James Anderson, President, in the Chair.

Dr. Sayre, after the reading of the minutes of a previous meeting, moved a reconsideration of Dr. Post's resolution, endorsing the Board of Health. He apprehended that the Academy might be subjected to ethical discipline by the American Medical Association for a violation of their code, in that the Board of Health had recognised in its appointments the claims of "homœopathy."

Dr. Harris, on the part of the Board, disclaimed any sympathy with the system in question; in fact, all the medical members thereof had protested against the act. As it was, however, the adherents of this system had so small a chance for managing matters to their liking, that they have as a body protested.

Dr. Sayre replied, that in the debate before the Board, as reported by the public prints, in regard to this question, Dr. Parker "could see no merit whatever in the homœopathic treatment;", and Dr. Stone in the same connexion, while acknowledging the unsatisfactory results of said treatment as tested at Vienna, was yet willing to concede somewhat to popular prejudices; in other words, he condemned individually what he was ready to allow officially. For his part, he contended that an endorser was equally responsible with the drawer of a note, and that the precepts of the school in which he had been educated were adverse to the adoption of a similar line of action. At all events, the claims of the parties in question had somehow been acknowledged in the appointments soon after made, and it was incumbent upon the Academy to refrain from even an indirect recognition of that procedure.

Dr. Raphael, as a matter of courtesy to the original mover of the resolution, who was not then present, offered an amendment to lay the whole subject on the table, which was carried.

Dr. Ephraim Cutter, of Boston, exhibited in his own person the action of the laryngeal apparatus in vocalization, etc., bringing into view the orifice of the Eustachian tube, the posterior nares, etc. He also presented to the notice of the Academy a spray-producer for procuring local anæsthesia, which was constructed of tin, and essentially consisted of the extremities of two oil fillers, adjusted at right angles to each other. He likewise introduced a contrivance combining the requisites of a blowpipe and a spray-producer, simple in construction, and not liable soon to get out of repair. This could be made of either platinum or silver, and was ornamental as well as exceedingly durable.

Dr. Squibb notified the Academy that he had on hand for distribution 600 lbs. of the Disinfecting Powder mentioned in his late paper, and that it was contained in two barrels subject to the order of the Academy.

Dr. Sayre moved that one barrel be sent to Bellevue Hospital, and the other to the Board of Health. Carried.

Discussion on Quarantine.

Dr. Harris read a paper as above, in which he advanced the view that quarantine had no influence in preventing the introduction of the cholera, and that the only requisite was an effectual purification of those who had been exposed to the disease. He claimed that merchandise, as such, had never carried the pestilence;

that the greatest danger arose from clothing soiled by the fermenting albuminous discharges, and that every resource should be brought to bear to absolutely disinfect all such material.

Dr. Bibbins pronounced the quarantine as at present conducted a national disgrace, and one which no monarchy would for a moment tolerate. He was no advocate for half-way measures; he did not believe in intensifying the virus by huddling masses of humanity together. The secular papers had taken precedence of the profession in agitating the matter by an exposure of the attendant abuses. He charged that the Metropolitan Board of Health, created by the Legislature and backed by a Congress identical with it in sentiment, might do more than they had done. He held this Academy, the profession, nay himself, responsible for not having cast the weight of their influence collectively and individually against this crying evil.

Dr. Sayre desired to absolve himself of any responsibility for the present condition of things, since he had unavailingly been agitating a reform for the past six years.

Dr. Bell declared the law to have been at fault from the very start; as far back as eight years ago the subject of quarantine reforms had been introduced before the Legislature, but by the manipulations of politicians all essential provisions in the bills had been stricken out, and in lieu of reform the people had been treated to enactments in which indefinite *discretionary* powers had been conferred. The Board, he was authoritatively informed, had just seized Seguin's Point, and now the old question of buildings would of course come up. But why talk of these, when in tents, which may be had in almost unlimited quantity, and which could be pitched in a very short time, every sanitary requisite was attainable? He very much questioned whether reforms were practicable as long as officers found it to their interest to detain emigrants at quarantine. We may talk of partial quarantines; but are we free from blame when our vessels leave port in a condition just as filthy and with equally bad provisions for ventilation as those arriving from abroad.

A further discussion of the subject was then, on motion of Dr. Sayre, postponed until the next meeting, after which an adjournment was declared.

EAST RIVER MEDICAL ASSOCIATION.

Stated Meeting, June 5, 1866.

Dr. John Hart, President, in the Chair.

DISCUSSION ON CHRONIC DYSENTERY.

Dr. Priestley opened the discussion by the reading of a paper and the exhibition of several colored diagrams, executed by himself after post-mortem specimens, which illustrated the lesions belonging to this subject. He contended that *chronic diarrhœa*, a term very loosely applied, was in reality a disease of rare occurrence, and belonged, if at all, to the history of enteritis, arising in the course of a typhoid fever. It can but seldom be originated from acute diarrhœa, since the patient survives the attack by recovery from enteritis; but if, on the contrary, the derangement of the alimentary canal is continued, the disease becomes merged into a dysentery of the acute or chronic form. In a certain number of the fatal cases which came under his charge while on duty at David's Island—and these were from other hospitals with cards accredited as chronic diarrhœa—he had made very minute autopsical examinations, and as a rule found the lesions those of marasmus and chronic dysentery. Only in two instances did the small intestines show anything more than a slight congestive redness. None of these patients had large serous stools, but all upon admission were suffering from frequent tenesmus and small, slimy evacuations mixed with a muco-purulent effusion. He had also frequently found a large highly congested liver, with the posterior lobe considerably thickened. He might venture the theory that the return circulation of the portal vessels thus interrupted, might indirectly add much to the morbid changes discoverable in the lower twelve inches of the colon. He had also made many autopsies at David's Island of cases of reputed typhoid fever, and generally found the lesions those of chronic dysentery. Patients would be admitted into the various military hospitals laboring under no specific disease, but broken down by exposure, by prison-hardships, change of diet, habits, climate, etc., etc.; in fact, in a condition known to the army surgeon as that of "general debility," with a scorbutic element superadded. The patients easily appealed to the sympathy of the ladies attached to the extra-diet kitchens, by whom many delicacies were at times furnished with mistaken kindness, patronized the sutler, and generally consumed in one day articles digestible and indigestible enough to feed them well for half the week. During all this time, too, they would be visiting the water-closets about thrice daily; some would die suddenly of an acute diarrhœa, but a majority would linger on with a chronic dysentery, proving by the lesions in the fatal cases the correctness of the diagnosis. He remembered a suddenly fatal case where the whole alimentary canal was found impacted with crude, half-digested materials, while the lining membrane of the organ was adjudged quite normal, and the other viscera, after a careful examination, pronounced healthy. The only conclusion arrived at was that death was due to simple over-feeding, to which result, perhaps, a shock of the nervous sympathetic centres, induced by a pressure of the encased mass, contributed by their reflex action upon the diaphragm. He would not, however, deny that some of these chronic dysenteric cases might not have been in their inception complicated with the lesions belonging to typhoid fever, bilious diarrhœa, and certain forms of cholera; but he maintained that these were not *per se* of long continance.

After detailing the particulars of several cases in which very thorough dissections had been made soon after death, and upon which he based his view, he passed to the consideration of the treatment.

The extensive lesions of the colon in the aggravated cases, together with the enlarged and altered condition of the mesenteric glands, were certainly not very stimulating to our faith in any plan of treatment. We must therefore be prepared to hear of a great many recommended remedies. As aliment, beef-tea, poultry, eggs in various combinations, milk-punch, and liberal rations of Bourbon whiskey or sherry wine, were generally adopted.

He relied in a measure upon the *Subnit. Bismuth* in combination with the *Pulv. Ipecac. Comp.*, or a somewhat similar preparation in the form of a pill, composed of the *Subnit. Bismuth and Pulv. Opii*, worked into a mass through the medium of the *Ext. Gentian.* The *Tinct. Calumbæ*, the *Tinct. Cinchon. Comp.* when attainable, and the *Tinct. Ferri Muriat.*, he had also found beneficial.

Ipecacuanha had also been highly extolled for its action in this disease. Dr. Docker, of the Seventh Fusiliers, in his experience at Madras, pronounces it to have been invaluable, but his cases were probably not as severe as those met with during the late war, and were more tropical in their character. This gentleman had given as high as ninety grains. Dr. Cunningham, of the

Fourth Bengal Europeans, who administered this drug according to the urgency of the symptoms in doses varying from a scruple to half a drachm, applied a sinapism over the epigastrium, and gave thirty drops of the *Tinct. Opii* to aid its retention by the stomach. This plan, according to his experience, allayed the tenesmus and stopped the dysenteric stools for twelve hours, while a few repeated doses cured the disease. Dr. Cunningham's theory of the rationale of this mode of treatment, and in this he agreed with him, is that the ipecac. excites extensive secretions from the mucous membranes of the intestines; overcomes, by the resulting nausea, the spasmodic action of their muscular coat; and by the lubrication of any scybalæ retained in the saccules of the colon facilitates their discharge. Besides this, enough of the drug is retained to produce a copious catharsis.

Dr. Gairdner, of Edinburgh, has essayed creasote injections, but charged the specimens used with a loss of power; he then administered it *per orem*, and believed that by its efficiency in causing the retention of ipecac. previously administered, his patients were saved,

Assistant Surgeon Oliver, of the First Battalion, Sixtieth Rifles, had succeeded in arresting the disease by combining with anodynes *Bismuth, Creasote*, and *Bals. Copaibæ*. Dr. Innes of the same regiment was in the habit of relieving the tenesmus by enemas of *Creasote* and *Tinct. Opii*, combined with mineral astringents.

For his own part, he had treated this distressing symptom, after the failure of other remedies, by enemata of the *Decoct. Querc. Alb.* in combination with *Battley's Solution of Opium*. After the subsidence of the tenesmus and the establishment of fluid or feculent stools he administered the *Mass. Hydrarg.* with the *Ol. Ricini* and the *Syr. Rhei Comp.*

Dr. H. S. Hewit, late Medical Director of the Department of the Cumberland, has advocated the treatment by *Epsom salts*, which was an excellent derivative, and probably tended to cure by inducing fluid discharges. His own experience in its use was limited.

He preferred vegetable to mineral tonics, because they could be more persistently employed, and had considerable faith in the potency of *Dover's Powder;* but many of the specimens found in the shops were comparatively valueless, owing to the use of the *Sulph. Potass.* in powder, instead of in crystal, by which latter form the minute division and consequent efficiency of the *opium* and the *ipecac* were effected.

Dr. John Shrady acknowledged that some of the diagnoses in the class of cases alluded to by Dr. Priestley had been rather loosely made, and that, owing to certain defects in the construction of the tabulated forms for reporting cases as they occurred, a diagnosis could not be readily changed except by a new entry. Hence the bed-cards did not always represent the present condition of the patient. The confusion attending the use of the terms, "chronic diarrhœa" and "chronic dysentery," appears also to have been appreciated at the Surgeon-General's office, since in a recent circular the two diseases are discussed in conjunction. He had noticed in many of the autopsies evidences of renal disease; and the direct cause of death, in some instances, was uræmia. As far as remedies were concerned, he had seen nearly all tried. Some surgeons relied upon *Hope's Mixture*, some upon a combination of the *Sulph. Morphia* and the *Sal Rochelle* dissolved in the *Aqua Camphoræ*, while others pushed the *morphine* to narcotism. *Quinine* and *Dover's Powder* was also a combination which had passed into a proverb even among the soldiers themselves. *Pulv. Opii* and *Subnit. Bismuth*, combined, had likewise many advocates, not to mention *opium* with the most powerfully styptic *salts of iron*, or with the *diacetate of lead*. Injections had been fairly tested, but in spite of the efforts of all, a certain proportion of the cases would die, while others would return to duty after having been subjected to dietetic and climatic influences under more favorable circumstances.

Dr. Burke, in his treatment of a few discharged soldiers, had resorted with benefit to a somewhat familiar combination of the *Ext. Hæmatoxylon* with *Tinct. Opii*, suspended in some convenient menstrua and administered every two hours. The treatment by *Sulph. Magnesia* was in reality the revival of an old method, which had fallen into disuse long before the war. Its merits had been discussed in some of the earlier English works upon practice.

Dr. Buttles was not familiar with the use of this agent in *chronic* dysentery, but had seen remarkable effects following its exhibition in the *acute* form of the disease. It was in the latter cases quite frequently used with marked success by Dr. Thayer, of Keene, New Hampshire.

Dr. Hart had frequently resorted to the use of the *Oleum Terebinth.*, and had found it excellent, when externally applied, for relieving the tenderness experienced by the patient along the course of the colon. He had also administered it internally in combination with the *Oleum Ricini*, with some benefit in cases which had not yet become chronic.

Dr. T. Nichols thought that, inasmuch as was well shown in the diagrams before the Association, there were in these cases inflammations, ulcerations, etc., of the colon, the topical application of remedies by means of enemata ought to be more effectual than they had proved. He would, however, give the *Nit. Argenti* a fair trial before yielding up his faith in its efficacy. Solutions of different strengths might be resorted to, although he was aware of the difficulty attending upon the attempt to apply the dissolved escharotic at the precise locality most needed. Some practitioners had endowed this agent with considerable virtue, when taken internally in the form of pill, combined with opium; but owing to its liability to produce *argeria*, it had not found many advocates.

Dr. Burke adverted to a well known instance of Argeria caused by the continuation of a prescription on the patient's own responsibility. These were pills containing nitrate of silver which had been ordered for a certain form of dyspepsia, and the characteristic discoloration took place after a few months' use.

Dr. Buttles was of the opinion that similar effects were not likely to be produced when this salt of silver was introduced *per rectum*. He had also seen it stated that some of the physicians on the continent guarded against this danger by a careful exclusion from the light while the medicine was in process of administration.

Dr. J. W. Sheppard urged the claims of the *pernitrate of iron*, which was highly extolled by Dr. Neligan. He had derived some benefit from its exhibition, and was disposed, when opportunity offered, to put it on still further trial.

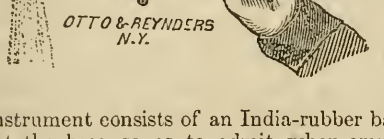
The meeting then adjourned.

Trichiniasis.—It is stated that the pigs of Hungary have long been affected with trichinæ. The disease has not been communicated in that region for the reason that the trichinous pork is not used for food. The Hungarians seem to be able to recognise meat affected with this disease by the sensation it gives while being eaten of grains of sand between the teeth. Swine are cured of this disease in that country by hempseed. The symptoms by which the disease is usually recognised are the "savage propensities of the animals and their mania for gnawing wood."—*L' Union Medicale.*

New Instruments.

LARYNGEAL SPRAY PRODUCER.

When the spray producers were first introduced, and when their value in making applications directly to affected parts was appreciated, the difficulty in reference to their almost universal applicability consisted in the scattering of the spray over too large a surface. This offered a very serious interference in its application to laryngeal affections. It was found necessary, then, to make some contrivance whereby the spray, in a small volume, could be directed at will to any given, small, and isolated space. This was finally effected by an alteration in the relation of the capillary tubes to each other, as is represented in the following cut, which is that of "Maunders' Laryngeal Spray Producer."



This instrument consists of an India-rubber ball, perforated at the base, so as to admit, when emptied, of instant refilment with air; of an upper or air-tube communicating at one end with the ball, and terminating at the other in a capillary opening; of an under or medicine-tube dipping at one end into a medicine-glass, sliding upon a pin, and terminating at the other in a capillary orifice set at nearly right angles to that of the air-tube.

To use the instrument, all that is required is to slip off the small medicine-glass; fill it two-thirds full of the fluid to be broken into spray; return it to its place, having the medicine-tube immersed in it; place the point of the instrument over the larynx; cover with the thumb the perforation in the base of the ball, and with quick forcible compression, force the air out of the ball, when immediately there will be produced a vertically directed spray of the utmost fineness. The spray may, with equal care, be directed either in a straight line or at any required angle, by the adaptation of variously shaped tubes. In order to make the current continuous and the instrument more effective, Messrs. Otto & Reynders have added an extra rubber ball, as represented in some of the nebulizers previously referred to.

Dr. Semeleder, whose book was lately published in this country, physician to the Emperor of Mexico, writes to the editor of one of the Vienna medical journals in answer to some unfriendly rumors: "I would inform my dear friends and colleagues that I am quite well and contented, and cherish the hope of remaining for some time in this pleasant condition.

Mexico, 12th January, 1866."

North Western Dispensary.—This institution has recently purchased a plot of ground on Broadway, between Forty-eighth and Forty-ninth streets, extending through to Seventh avenue, at a cost of $18,500. Dr. Stephen W. Roof has been appointed one of the visiting physicians in the place of Dr. A. David Hedges, resigned.

Correspondence.

AUTOPSY OF PROBST, THE MURDERER.—MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

To the Editor of the Medical Record.

Philadelphia, June 16, 1866.

Sir:—The main events that have interested the profession in this locality during the past week have been the post-mortem examination of the body of the executed murderer Probst, and the annual meeting of the Medical Society of the State of Pennsylvania.

Probst, who, as you know, murdered the Dearing family of eight persons, suffered the penalty of his crime on Friday, 8th inst., and after his body had hung the required time (about half an hour), the corpse was transferred to Dr. Wm. H. Pancoast, Demonstrator of Anatomy in the Jefferson Medical College, who, with other medical gentlemen, members of a commission appointed for that purpose, performed a series of galvanic experiments upon the muscles, continuing until the muscular irritability was lost. No new facts were elicited. An ophthalmoscopic examination of the retina of the eye was made by means of a powerful electric light as soon as the corpse was cut down, but no image could be discovered. The body was subsequently conveyed to the college buildings, and the next day, after a preliminary dissection of the region of the neck, a public post-mortem examination was held in the amphitheatre, before a very large audience composed of men of science, morbid curiosity-seekers, and lovers of the marvellous and horrible.

As a thorough report of the entire examination will soon emanate from an official source, it will be sufficient to state here that the abnormal effect produced seemed very inadequate to the cause of death. A dark, purple furrow around the upper part of the neck marked the position of the strangling cord, except just over the parotid gland, at the spot selected for tying the knot. The sterno-cleido-mastoid muscle of the right side was ruptured transversely, and the hyoid bone was fractured in two places, and this appeared to have been the entire extent of lesion. The thyroid cartilage was intact; the arteries and veins on both sides uninjured; there was no fracture of the second vertebra, or rupture of its ligaments. There was no congestion of lungs or brain; the stomach was empty, although food had been taken but a couple of hours before the execution. The heart, liver, bladder, and other viscera were successively examined; but there was no other lesion discovered than the rupture of the sterno-cleido-mastoid muscle and the fracture of the hyoid bone. The examination was accompanied by a lecture on the subject of hanging, from Dr. Pancoast, which was listened to with a great deal of attention.

The Meeting of the Medical Society of the State of Pennsylvania was held at *Wilkesbarre*, in *Luzerne County*, on the 13th and 14th instant, and was attended by between sixty and seventy delegates. An official abstract of the transactions will be furnished for the columns of the Medical Record by Dr. Wm. B. Atkinson, the Permanent Secretary, so that it will be desirable, in this communication, only to allude to the main features of the meeting in a conversational manner.

Dr. Burr, on behalf of the delegation from the Medical Society of the State of New York, made a very pleasing address, alluding to the community of professional interest between the two State organizations

being so much in consonance with the continuity of stream, mountain, mode of life, and general enterprise, noticed in travelling through one State into the other, so that the eye could discern no line of geographical, social, or professional division.

On the night of the 13th Dr. J. Solis Cohen, of Philadelphia, delivered a brief lecture on the *Use of the Laryngoscope*, and exhibited the larynx and trachea of a patient whom he had brought with him for purposes of demonstration, and in whom can be seen the anterior portion of the trachea, its entire extent, and one or two rings of the right bronchus. The members examined the case in rotation, and expressed themselves as highly pleased with the demonstration. The case presents some interesting pathological conditions, which were exhibited at the same time, and will doubtless be communicated to your columns in a more permanent form.

Dr. King, of Pittsburg, late the Surgeon-General of the State of Pennsylvania, narrated a curious case of tubular pregnancy which had been communicated to the Alleghany County Medical Society by Dr. Davis, a full account of which will appear in the State Society's Transactions for the year. The case is briefly as follows: Fifty-four years ago a married lady became pregnant, went on to term, labor pains apparently began, but were never followed by delivery. The tumor in the abdomen remained stationary, and the lady always insisted that she had been pregnant, and wondered why she had never been delivered of her child. She died recently at the age of *eighty-two*, and on her death-bed requested that a post-mortem examination should be made to discover why she had never been delivered. The examination was made accordingly, and the tumor found to consist of a bony case, on cutting through which a well formed and perfectly preserved fœtus of full term was exposed to view. The bony envelop was half an inch thick, and in cutting through it the head of the fœtus had been severed from its body. The whole appearance was that of a recent gestation, the head was covered with hair, and the flesh and skin intact—there being no evidence of any existence of animal decomposition.

Dr. Atlee, of Philadelphia, requested the specimen for the College of Physicians of this city; and in commenting upon the length of time the tumor had been carried, was reminded of a case in which he had been invited by Dr. Jewell, of Philadelphia, to assist at the post-mortem examination of a maiden lady, of about eighty years of age, who had carried an abdominal tumor since her twentieth year. The left ovary was gone, and the hypochondriac region of that side was occupied by a large globular tumor, with extensive attachments to surrounding structures. Its walls were like those of an ovarian cyst, and it was filled with a mass of red hair and some broken-down animal matters. The hymen was imperforate, and the uterus presented no trace of impregnation; consequently the tumor was the altered ovary of that side. The case was unique, and had often been brought forward by the opponents to the operation of ovariotomy, as a proof that ovarian tumors could be safely carried to a very advanced age.

The subject of *female practitioners of medicine* was made a matter of very lively discussion, though at one time it threatened to disturb the harmony as well as the equanimity of the members. A resolution emanating from Montgomery county was offered, to rescind a resolution passed at the meeting of 1860, which declared it unprofessional to hold consultation with the professors and graduates of the Female Medical Colleges as then organized. Dr. Traill Green of Easton, Dr. Horton of Bradford county, Dr. Hiram Corson of Montgomery county, and others, discoursed most eloquently upon the increasing sphere of woman's usefulness, and in favor of encouraging females to practise medicine, providing them with regularly educated professors in good standing, recognising such college when organized on the same basis as the present regular colleges, and availing themselves of their judgment and experience afterwards; especially calling upon the delicate hand, the flexible wrist, and the delicate sympathy of sexual organization, all of which fit them preëminently for the practice of obstetrics. The principal opposition came from the Philade'phia delegation, although this delegation was divided; but with all the eloquence they could muster, they could only succeed in negativing the resolution by the trifling majority of four, the vote as recorded on the minutes showing 23 ayes against 27 nays—a pretty close vote. The lady doctors now know where their friends reside, and ought to go out in the country to practise; the majority of country physicians want them, and the city physicians generally would be glad to get rid of them. They will be well received, especially in Bradford county and in Northampton county, where some of the practitioners express themselves ready to resign all their obstetric practice.

No sooner was this motion lost than a strong attempt was made to obtain some further action which would remove the irregularity of consulting with these female practitioners. Dr. Mowry, of Alleghany City, offered a resolution to the effect that the action in the resolution adopted in 1860 was not to be understood as preventing such members of the profession as desired it from consulting with properly educated female practitioners. The discussion of this resolution occasioned a great deal of excitement and much more confusion, until finally the subject was put to sleep for a year by a compromise in the adoption of a resolution requesting action on the subject from all the County Medical Societies, so as to secure a general expression of opinion previous to its safe delivery or abortion, at the meeting next year at Pittsburgh.

A resolution was adopted, censuring the professors of the Medical Colleges of Philadelphia for their apathy in the matter of County, State, and National Medical Organizations, and calling upon the American Medical Association for such legislation as will exclude from membership to that body any delegate from a hospital, college, or other medical organization, who was not at the same time a member of a County Medical Society. The resolution also recommended the practitioners of the State to send their students elsewhere than to the Philadelphia Colleges. As no professor or representative of the Colleges was present at the meeting, there was no opposition to the resolution, and it was carried without a vote in the negative.

The subject of *Specialties* was brought up by a gentleman from this city, resulting in the negativing of a resolution to "encourage the study and practice of specialties by properly qualified scientific practitioners." At some future day this record will be deemed a blot upon the transactions. The principal opposition to this measure came from Philadelphia; and the gentleman who offered the resolution, finding himself unsupported in the contest, gracefully withdrew, prudently reserving his strength for a future occasion.

The Treasurer handled some of the delinquent Societies pretty roughly, but in such a good-humored and diplomatic manner as elicited the approbation of all concerned, while it gave rise to a good deal of merriment.

The meeting, taking all in all, was quite harmonious and very agreeable. The members were escorted to several neighboring points of interest, and were entertained at an elegant dinner, which was got up in metropolitan style at the Wyoming Valley House.

The members are under peculiar obligations to Dr. Edward R. Mayer of Wilkesbarre for his unremitting attentions, night and day; as also to Drs. Dennis and Urquhart, as well as the other gentlemen of the Committee of Arrangements, for their kind reception and successful efforts to render the visit agreeable and instructive.

Yours truly,
C. J.

THE MASSACHUSETTS MEDICAL SOCIETY, Etc.

Boston, June, 1866.

To the Editor of the Medical Record.

Sir:—I send you a pen-and-ink sketch of some of the doings of the medical fraternity in Boston the past month. I am not one of those who think our city the "hub of the universe," or the inhabitants thereof entirely faultless in their opinions, the *Boston Medical and Surgical Journal* not excepted, *vide* issue of May 3, as regards defects of the American Medical Association, etc. But to business. At the meeting of the Suffolk District Society last month, Dr. J. B. Upham exhibited to the members present the instrument called the sphygmograph, invented by Dr. Marey of Paris, and at the same time gave a brief history of the invention and the affections in which it has been mostly used; also diagrams of cases at the City Hospital, in which he used the instrument satisfactorily on patients with different diseases, reporting one very marked case of its value in aortic aneurism. It is thought this instrument will eventually take its place among the recognised means of medical investigation. Dr. U. also took the record of the normal pulse on some of the gentlemen present, showing the method of its application.

The annual meeting of the Massachusetts Medical Society was held at the Lowell Institute, on Tuesday and Wednesday, May 29 and 30, and on the whole was a success. The exercises of the first day consisted of visits to the Mass. General and City Hospitals, where operations were performed, after which portions of papers were read at the Institute: On the Vegetable Parasites of the Human Skin, by James C. White, M.D.; Autumnal Catarrh, by Morrill Wyman, M.D.; Luxations of the Shoulder-Joint, by Richard M. Hodges, M.D.; Observations on the Physiology of the Larynx, by Henry K. Oliver, M.D.; Observations on Cholera, by Walter Channing, M.D.; The Policy or Impolicy of removing Leucocythemic Glandular Tumors, by David W. Cheever, M.D.; Cystic Tumors of the Jaw, by J. Mason Warren, M.D.; Conservative Measures required in certain Diseases of the Eye, by H. W. Williams, M.D. Dr. Henry J. Bigelow exhibited the new agent for local anæsthesia, rhigolene, and explained the ready method of its application. Dr. H. R. Storer exhibited a new clamp for the revoval of ovarian and uterine tumors in place of the écraseur, and explained in a very satisfactory manner its application and uses

The time of the second day was occupied by reading the record of the last annual meeting by the Secretary, and the annual report of Dr. Francis Minot, the Treasurer. The report of the Councillors of officers elected for the ensuing year was then read: For President, Dr. Henry C. Perkins, of Newburyport; Vice-President, Dr. Foster Hooper, of Fall River; Corresponding Secretary, Dr. C. D. Homans, of Boston; Recording Secretary, Dr. D. W. Cheever, of Boston; Treasurer, Dr. Francis Minot, of Boston; Librarian, Dr. J. C. White, of Boston; Orator, Dr. H. P. Wakefield, of South Reading; Anniversary Chairman, Dr. H. W. Williams, of Boston.

It was also voted to hold the next annual meeting in this city on the first Wednesday in June instead of the last Wednesday in May. Papers were then read by Dr. Luther Parks, Jr., of Boston, on Cerebro-Spinal Meningitis; Dr. E. Cutter, of Woburn, on Atomization and Fracture Beds; and Dr. Chapin, of Winchester, on the Medicinal Qualities of the Common Mullein.

Dr. H. R. Storer, of Boston, then read a valuable paper on the Abetment of Criminal Abortion by Medical Men, taking the ground that any measures either of omission or commission upon the part of the profession that tend to perpetuate or increase the too common impression of the community, that the fœtus is not alive before birth, should be deprecated. Putting aside any question as to the morality of inducing unnecessary abortion, there can be no doubt that to this cause, and to the almost universal adoption of methods to prevent pregnancy, much of the ill-health of our women is to be attributed, and no treatment can hope to be successful that does not strike at the very root of the whole matter. Dr. S. commented upon the failure of the Massachusetts Medical Society to respond to the call made upon State societies several years ago by the American Medical Association, with reference to obtaining proper legislative enactments regarding criminal abortions, and showed that the Massachusetts statutes were at the present time practically inoperative. The action taken by the New York State Society, at the time referred to, was quoted, and the resolutions passed by the two societies were read and compared, the preference being decidedly in favor of the sister State. Dr. S. claimed that inquiries like the present were alike appropriate, philosophical, and necessary. These matters, and all others pertaining to the sexual relations, lie at the very foundation of society. To ignore them is to allow the growth often of terrible destructive evils. Abroad, many of the most influential members of the profession were turning their attention in this direction, and with ourselves the importance of the matter is becoming generally acknowledged.

Dr. Storer's paper was to the point, convincingly argued, and evidently carefully prepared. At its close, remarks warmly commendatory were made by Dr. Corliss, one of the delegates from the New York State Society, and the unanimous thanks of the members present were voted to Dr. Storer.

After the transaction of business of minor importance, the annual oration was delivered by Dr. George C. Shattuck, on "Professional Relations." The discourse was an able production, upholding the dignity of the profession, touching upon quackery in all its forms, calling upon medical men under all circumstances to stand by the true physician, eulogizing those members who during the past year have gone to their long home, and in general terms giving advice to both old and young. The thanks of the Society were voted, after which an adjournment was made to the Music Hall, to partake of the anniversary dinner. Dr. Wm. E. Townsend presided, and after discussing the quality of the solids and fluids, remarks were made by Dr. Shattuck, Dr. Gould, Bishop Eastburn, and Dr. Jacob Bigelow. A letter in reply to a toast complimentary to the State of Massachusetts and its Governor was then read from Surgeon-General Wm. J. Dale, thanking the Society for an invitation to attend, and regretting inability, etc. The next regular toast was one complimentary to the American Medical Association, responded to by Dr. D. Humphrey Storer, and it would have done your soul good, Mr. Editor, to have heard the response; so truthful, so eulogistic, and so cutting upon those mem-

bers who have spoken lightly of that time-honored institution. Dr. Storer referred in scathing terms to the paucity of members from our State at the last meeting held at Baltimore, and stated that he had no words but of pity for those members of the profession who would ignore that glorious Association. Made up as it was by members from all parts of the country of acknowledged medical worth and science, it would stand as firm as the rock of Gibraltar, and no "clique" or "power" could move it. It was a noble tribute to the "American Medical Association," and worthy of its defender.

Dr. Hart, of New York, returned the thanks of the New York State Medical Society for the kindness and urbanity with which their delegation had been received, and desired that a large delegation might be annually sent from the Massachusetts Medical to the New York Society, when every courtesy would be shown.

The Society then adjourned, and everything passed off in a pleasant manner.

I have thus, Mr. Editor, in a hurried manner, given you a succinct account of the doings of the Massachusetts Medical Society, and trust I have not wearied your readers or yourself by too lengthy an account.

Last Friday night, June 8, Dr. Charles H. Stedman died, aged sixty-one years. Dr. S. was well known by many New York physicians, and was a man highly respected in his profession. He was a graduate of the Class of 1828 at Harvard College; was appointed Surgeon and Superintendent of the U. S. Marine Hospital at Chelsea, Mass.; subsequently Physician and Superintendent of the City Lunatic Hospital, at South Boston; and at his decease was one of the Visiting Surgeons of the new City Hospital. In the years 1855, 1856, and 1857 he held offices of trust, as Massachusetts State Senator, also Councillor, since which time he has devoted himself assiduously to his profession. His heart was ever open to the poor, and his sudden death will be mourned by a large circle of friends, professional and public. On Sunday a post-mortem was made by Dr. C. Ellis, and in addition, the following physicians were present: Drs. Ainsworth, Swan, Page, Reed, Clark, Ingals, and Ordway. The result proved that the immediate cause was rupture of the heart, from "fatty degeneration." Dr. S. had expressed the opinion at several times in his life that he had organic disease of the heart, but on examination by different physicians had been assured that no trace of disease of that organ could be discovered. The singularity of this examination has demonstrated almost to a certainty that it may be possible that this disease has continued for a period of thirty years (the time Dr. S. had complained of his trouble) without symptoms except of pain. Dr. Ellis gave as his opinion that, from the general appearance of the organ and also in fatty heart, you would get no other symptom except pain in many cases. The appearance of the heart at its apex was very singular, as if a pistol-ball had gone through it, and also the internal hæmorrhage, amounting to some six or eight ounces. The feel of the organ between the thumb and forefinger was pulpy, and it could be broken with the least possible pressure. Dr. S. attended to his duties two days before death, and was not considered dangerously ill two hours before his death. Altogether it is a remarkable case and worthy of consideration. But he has gone—a faithful and good physician.

Yours truly,

B.

James Ferguson, M.D., a graduate of the College of Physicians and Surgeons, died Tuesday, May 22.

Obituary.

PROF. E. D. FENNER, M.D.,

NEW ORLEANS.

Died, on the 4th of May, 1866, in the City of New Orleans, in the sixtieth year of his age, Erasmus Darwin Fenner, M.D., Dean of the Faculty, and Professor of the Theory and Practice of Medicine in the New Orleans School of Medicine, and Senior Editor of the *Southern Journal of the Medical Sciences.*

In the death of this most estimable man, the medical profession throughout the country must recognise the loss of a most honorable and useful member, and society the loss of the truly "good physician," and a citizen valued and cherished in all the relations of private life.

Dr. Fenner was born in Franklin County, North Carolina, of Irish parentage of the first order, in the year 1807. His father was a physician of high standing, enjoying the confidence and long-continued patronage of a most enlightened community. In early life Erasmus emigrated with his brothers to West Tennessee. After receiving a liberal preliminary education, he studied medicine, and graduated in Pennsylvania University in the year 1830. He practised his profession most successfully in Mississippi until 1840, when he moved to the City of New Orleans. There he has lived an honored and useful man for twenty-six long years. In 1844, in conjunction with Dr. Hester, he established the *New Orleans Medical and Surgical Journal*, and most ably did he conduct it during several years. This was the first successful Southern journal south of Louisville, Kentucky. After resigning his connexion with this journal, he devoted two years to the annual issue of a volume entitled "Fenner's Southern Medical Reports," and the two volumes stand a noble monument to his professional energy and industry. For several years before the war, he was co-editor with Dr. D. W. Brickell in the conduct of the *New Orleans Medical News and Hospital Gazette.* In the spring of 1856 he, in conjunction with eight of his professional brethren, organized the Faculty of the New Orleans School of Medicine; and at the breaking out of the late war, he had the proud satisfaction of seeing this institution succeed as no other of its age had ever done in this country. In the early organization of the school, Dr. Fenner was elected Dean, and he filled the position to the hour of his death. To Dr. Fenner and his colleagues is due the credit of having inaugurated the real system of clinical instruction in this country.

Dr. F. was a prominent member of the American Medical Association, a member of the New Orleans Academy of Sciences, etc., etc.; and for the long term of his residence in New Orleans, he was a "Visiting Physician" to the Charity Hospital of that city. To make his daily visit to that great institution may be said to have become a "second nature" with him.

In truth, it may be said that the life of this good man was dedicated to his profession. He was not possessed of brilliancy, but he was *honest* and *zealous* as a writer, teacher, and practitioner, and herein we at last find the real elements of utility. Dr. F. lived for his profession, and he died "in harness." At the time of his death he had just finished a faithful course of lectures to his class—deeming it his first great duty, at the close of the war, to reëstablish the school over which he presided. His numerous pupils will bear ample testimony to his industry and good faith. He had, also, just established a new journal (*Southern Journal of the Medical Sciences*), on the pages of which may be found his last

literary efforts. He did not live to see the first number of this journal. It came from the press on the morning of his death.

A "good physician," a valuable teacher, an ornament to society, has passed away; but his noble example is imperishable, and his memory will long be cherished.

New Publications.

Shakspeare's Delineations of Insanity, Imbecility, and Suicide, by A. O. Kellog, M.D., Assistant Physician, State Lunatic Asylum, Utica, N. Y. N. Y.: Hurd & Houghton, 459 Broome street. 1866.

City Document, No. 55. City of Boston. Opinion of the Consulting Physicians on Cholera. 1866.

Local Anæsthesia by Cold, by Calvin G. Page, M.D. Extract from *Boston Medical and Surgical Journal.*

The Key to General Practical Ventilation Found, by F. M. Butler. N. Y.

On the Progressive Locomotor Ataxia, by Roberts Bartholow, A.M., M.D. Cinn. R. Clarke & Co. 1866.

Clinical Lectures, by Professor A. Von Graefe, on Amblyopia and Amaurosis, and the Extraction of Cataract. Translated from the German, by Haskett Derby, M.D., Surgeon to the Mass. Charitable Eye and Ear Infirmary, etc., etc. Boston: David Clapp & Son. 1866.

Surgeons of New York, by S. W. Francis, A.M., M.D., Fellow New York Academy Medicine. N. Y.: J. Bradburn. 1866.

Cholera, its Characteristics, History, Treatment, etc., etc., by W. B. Fletcher, M.D. Cincinnati. 1866.

Medical News.

Personal.

Rev. Dyer Ball, M.D., missionary of the American Board, died at Canton, China, March 27, 1866. He was born in West Boyleston, Mass., June 3, 1796, graduated at Union College in 1826, embarked for Singapore May 15, 1838, and went to Canton in 1845.

Prof. Wm. H. Van Buren has resigned as Consulting Surgeon of the Charity Hospital, but still continues his relations to Bellevue Hospital. Dr. E. Schilling has been appointed to fill the vacancy occasioned by the death of Dr. Cox, late Consulting Physician to the Emigrants' Hospital, Ward's Island.

PROGRESS OF THE CHOLERA.

The Steamship Helvetia, after a quarantine of some twenty-seven days at Liverpool, again set sail for this port, May 29th, and arrived here early on the morning of the 11th ultimo. This last voyage, according to the affidavits of the medical officers and other evidence, has been quite healthy. It is proper to state that seven hundred of the passengers, who had originally embarked in the Helvetia, were re-transferred from the hulks in which they had spent their quarantine, only after a thorough inspection by British officials, and a new refit of bedding and blankets.

Quarantine, N. Y.—There are now six hospital ships on duty in the Lower Bay, but their somewhat crowded condition will soon be remedied by the transfer of the passengers who have been exposed to, but who have not as yet been attacked by the epidemic, to the grounds at Seguin's Point. The epidemic itself is verging to a decline. Since our last announcement, it has been determined that measures having in view purification merely, are to be adopted at this locality. The buildings and necessary arrangements for disinfection by steam, and for supplying water from the wells in the vicinity, have been reported complete. Much opposition, which has chiefly found vent in a large mass-meeting on the 12th ult., has been manifested on the part of Staten Island inhabitants, but no apprehensions are entertained of any violent outbreak.

New York City.—According to Dr. Harris's mortuary report, six deaths from cholera occurred during the week ending Saturday the 16th ult. Additional cases have since been reported but of those which have recovered, some do not seem to have been sufficiently decided in character to render controversy on the part of medical attendants unnecessary. The health of the city in other respects, however, is unusually good.

Baltimore, Md. — Mr. Wm. Howard, aged forty-four years, said to have contracted cholera from a room-mate in New York City, who died of it, arrived here by the train on the 16th ult., and died at one of the infirmaries on the ensuing afternoon. No other cases have come to our knowledge.

Preventive and Remedial Treatment of Epidemic Cholera.—The New York Academy of Medicine, at the meeting held June 20, 1866, adopted the following preamble and resolutions offered by Dr. E. Harris: —

Whereas, The New York Academy of Medicine has endeavored to promote among its fellows, and throughout the medical profession, a spirit of exact inquiry into the prevention and remedial treatment of epidemic cholera:

Resolved, That this Academy hereby expresses its confidence in the utility of general hygienic measures as the best means of protection against the pestilential prevalence of cholera in any locality where it makes its appearance; and that the most thorough scavenging, cleansing, and disinfection, are absolutely necessary means of averting this pestilence in the cities and populous towns of our country at the present time.

Resolved, That in the judgment of the Academy, the medical profession throughout the country should, for all practical purposes, act and advise in accordance with the hypothesis or the fact that the choleraic discharge and "rice-water" discharges of cholera patients are capable, in connexion with well known localizing conditions, of propagating the cholera poison, and that rigidly enforced precautions should be taken in every case of cholera to permanently disinfect or destroy those ejected fluids, by means of active chemical agents. Also, that with the same object in view, the strictest cleanliness of person and premises should be enforced upon all who have charge of the sick; also, that all privies, water-closets, and cesspools, should be kept thoroughly under the control of disinfectants.

Resolved, That we regard the nature and causes of cholera infection, so far as the sick or their discharges can propagate it, as being so susceptible of control that there should be no fear or hesitancy in the personal care of the sick and all that pertains to them.

Resolved, That immediate and thorough cleansing and disinfection of all persons, clothing, and things that have been exposed to the discharges or persons of the sick with cholera, constitute the chief end and object of any rational Quarantine or external sanitary police regulation against cholera.

Resolved, That for purposes here mentioned, an external sanitary police is desirable in all great maritime and river towns, but that such sanitary regulations need not seriously embarrass commercial intercourse and the interests of trade.

Resolved, That the main source of protection against epidemic cholera at the present time is to be found in the vigi-

lant and effective operation of sanitary measures, municipal, domestic, and personal.

Resolved, That the New York Academy of Medicine cordially invites the physicians of every city and village throughout our country to urge the immediate adoption of adequate measures of sanitary protection against the introduction and ravages of cholera, and that to this end we pledge to our brethren and the public the hearty and continued coöperation of this Academy.

The Bellevue Hospital Morgue.—The new wing of the Bellevue Hospital, besides embracing the hospital dead-house, the coroner's office, and inquest rooms, has been in part devoted to the purposes of a Morgue, modelled after the Parisian institution upon the banks of the Seine.

The floor is paved with neat encaustic tiles, and upon it, at a height of about five feet, are laid four marble slabs, slightly inclined towards the foot. Over the whole are suspended india-rubber hose which will eject a constant current of water upon the corpse, and thus increase, by deferring decomposition, the chances of identification for the longest possible period.

The New York Academy of Medicine.—At the stated meeting, June 20th, Drs. E. Barry Dalton, Benjamin Howard, Christopher R. McMillan, of Brooklyn, Oscar G. Smith and Dr. Robt. F. Weir were duly elected Fellows.

Stevens's Triennial Fund.—A prize fund of one thousand dollars has been established by Alexander H. Stevens, M.D., ex-President of the College of Physicians and Surgeons, New York, for the improvement of medical literature, on the following plan:—Each prize, to be awarded triennially, is to consist of the interest yielded by the principal fund during the preceding three years, and will amount to about two hundred dollars. The administration of the prize is entrusted to a commission, consisting of the President of the College of Physicians and Surgeons (*ex-officio*), the President of the Alumni Association (*ex-officio*), and the Professor of Physiology (*ex-officio*), in the same institution. The following subjects have been selected, at the request of Dr. Stevens, for the first triennial prize under this fund:—

1st. The best means of preventing death after surgical accidents. 2d. The history of improvements in the medical art, and the means by which they are attained.

The competing essays on either of the above subjects must be sent in to Dr. E. Delafield, the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1869. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced, at the annual commencement of the College, in March, 1869. This prize is open for universal competition.

Health of Providence.—Dr. E. M. Snow, speaking of the health of Providence, says:—"The good health of the city continues in a remarkable degree. This is shown *first*, by the small number of deaths. Notwithstanding the increase of population in the last eleven years, the number of deaths in May was eight less than the average during that period. *Second*, by the very small percentage of deaths of children. Less than twenty-one per cent. of the decedents in May were under five years of age. The percentage during the last nine years was about forty-one. There were only fourteen decedents in May under five years of age, while there were thirteen over seventy years of age. There was the remarkable number of nine decedents over eighty years of age. *Third*. The healthy condition of the city is shown by the absence of zymotic diseases during the month of May. There was not a single death from cholera infantum, diarrhœa, diphtheria, measles, scarlatina, or small-pox; and only four deaths in the city, during the whole month, from the whole list of zymotic diseases. In May, 1864, there were thirty-two, and in May, 1865, there were fifteen deaths from this class of diseases.

"There is no epidemic of any description in the city at the present time, and not the slightest indications of the epidemic tendencies which, in former years, have preceded the approach of cholera.

"It is certain that the epidemic condition of the atmosphere necessary to produce epidemic cholera does not yet exist in this country, and there is still reason to hope that it may not reach us this year."

Typhus Fever in the District of Columbia Jail.—Typhus fever, which has prevailed with varied virulence for a month past at the United States Jail for the District of Columbia, has assumed such a malignant and epidemic form, that, on recommendation of Dr. Buhamel, jail physician, the court has discharged about forty inmates confined for minor offences; and the Secretary of the Interior has put at the Doctor's disposal one of the hospitals at Judiciary Square, to which the sick are removed.

Assignments to Duty of United States Army Surgeons.—The following orders have been recently promulgated from the Adjutant General's Office:

Surgeon John E. Summers, United States Army, assigned to duty as Medical Director, Department of the Cumberland.

Brevet Colonel Ebenezer Swift, Surgeon United States Army, relieved from duty at Louisville, Ky., and assigned to duty as Post Surgeon at Jefferson Barracks, St. Louis, Mo.

Brevet Lieut.-Colonel D. L. Magruder, Surgeon United States Army, relieved from duty as Medical Director, Department of the Platte, and will proceed to St. Louis, Mo., and await there further orders.

Brevet Lieutenant-Colonel R. H. Alexander, Surgeon United States Army, relieved from duty in the Department of the Missouri, and will report in person to the Commanding General, Department of the Platte, for duty as Medical Director of that Department.

Report of the New York Society for the Relief of the Ruptured and Crippled.—According to the third annual report, recently issued, the number treated for the past three years has been 3,282, of whom 3,253 have been relieved. Of the above number 987 under 16 years of age, laboring under morbus coxarius, rachitis, paralysis, lateral and other spinal deformities, club-foot, etc., etc., have been restored to the free use of their limbs, and for their cure over 80 surgical operations have been performed. The society furnishes trusses, supports, laced stockings, bandages, and other surgical appliances. The cost thus far has been less than $5 per head. With a commendable enterprise, which it is hoped will be liberally seconded, they have purchased, for the sake of securing more ample accommodations, their present premises No. 97 Second Avenue, which before this was only suited for a house of reception and the treatment of out-door patients.

Original Communications.

THE TREATMENT OF CERTAIN FUNCTIONAL AND ORGANIC AFFECTIONS OF THE NERVOUS SYSTEM.

BEING REMARKS MADE BY INVITATION BEFORE THE AMERICAN MEDICAL ASSOCIATION AT THE LATE MEETING HELD IN BALTIMORE,

By PROF. C. E. BROWN-SEQUARD, M.D. F.R.S., etc.
OF NEW YORK.

I PROPOSE, gentlemen, to offer a few remarks which shall bear more particularly upon certain improvements which have been made within the last twenty or thirty years in the treatment of nervous affections. In introducing this subject I can only refer to the great influence which a proper knowledge of the reflex phenomena has exerted upon an accurate appreciation of the causes which are at work in producing both functional and organic affections. I will not have time to discuss the philosophy of reflex action in its relations to nervous phenomena, but will simply remark that most of the facts which I am about to present fully establish the importance of the knowledge that all morbid manifestations may be due to a reflex influence. I will only allude, in passing, to one or two facts in connexion with this part of my subject, which would be observable in the relation of cause and effect by the most casual observer. The fact that a wound of a superficial part of the body produces tetanus, is a well known circumstance, and in itself is a sufficient *à priori* evidence that the cause of that nervous affection may proceed from a reflex influence. Again, the fact that epilepsy is induced in some instances by the pressure of a bullet upon a branch or the trunk of a nerve, and is as quickly and effectually cured by the removal of the missile, is a very patent argument in favor of the theory. I do not think it necessary to multiply examples; but will make the statement that in almost all nervous affections, whether functional or organic, the cause is very often a reflex influence. For instance, a marked congestion of the spinal cord, or of the brain itself, can very frequently be traced to a peripheric irritation as its starting-point. Let a cold current of air be applied to a part of the body that may be warm, the nerves of that particular part are irritated thereby, the irritation is transmitted to the brain or spinal cord, and congestion is the result. A full knowledge of the frequent production of nervous affections by a peripheric irritation, gives us a very important indication for treatment, which must necessarily consist in the removal of the cause of irritation, whatever it may be. If we can trace a congestion to cold applied to any particular part of the body, we must take the necessary means to counteract the bad influence which it has exerted upon the nervous centres by remedies applied directly to the starting-point of the irritation. For instance, if the nervous symptoms can be traced to the immersion of the feet in cold water, we must direct our applications to these extremities; we must induce a counter-irritation of those parts. By this intelligent direction of our therapeutic means, we accomplish a great deal, and may even by the simplest remedies arrest what may seem to be, and if neglected may certainly become, a very serious disease.

After these few remarks, I come to another very frequent cause of nervous affections. This is also of very great importance to consider. Any alteration in the secretion of a gland, no matter how unimportant that organ may seem to be for the preservation of our health, may be the cause of a nervous complaint. I can give illustrations of this, were it not patent to the minds of every one that such is the case. In connexion with this point, I cannot urge upon you too strongly the necessity in every case of nervous affection of looking carefully after the condition of every organ of the body, and assuring yourselves, if possible, that no peripheric irritation exists. Such an irritation might be found to reside in an old cicatrix which has been healed twenty years, and in which not even pain is felt.

I pass now to consider a great many means of treatment which are of importance in nervous complaints.

Pressure on the Carotid for Congestion of the Brain.—I will first speak of pressure upon the carotid as a means which has been employed against headache, against congestion, and against inflammation of the brain. This treatment was employed in the view, that by stopping circulation in that blood-vessel, the amount of blood in the brain was diminished. But this is far from being the case. Whatever apparent good effect there may be from pressure in the region of the carotid, it has nothing to do in diminishing the supply of blood to the brain; but it is chiefly a pressure on the cervical sympathetic nerve which brings about the result; for that nerve being irritated by such pressure, causes a contraction of the blood-vessels of the brain.

Ligature of the Carotid.—The carotid has been tied for the cure of epilepsy; but this is a most irrational treatment, and I hope it will eventually be abandoned. It has been employed not only in epilepsy, but in diseases of the brain, which, in common with that affection, were supposed to depend on congestion of the brain. But in this case, as in the one in which simple pressure on the carotid is used, the congestion is diminished by some irritation of the sympathetic. If surgery should be bold enough to divide this nerve (which, perhaps, may be before long), a great advance might be made in the treatment of epilepsy. The loss of consciousness depends altogether, in the beginning of the attack, on the contraction of the blood-vessels of the cerebral lobes, producing in these parts of the brain a state of syncope. The loss of consciousness which occurs in the *petit mal*, might be avoided altogether by the extirpation of an inch or an inch and a half of the cervical sympathetic nerve. The teachings of physiology and pathology, and particularly the results of my experiments on animals rendered epileptic, conclusively show that there can be no chance for a loss of consciousness after this operation is performed.

Cauterization of the Urethra.—LALLEMAND, who has written an excellent work on seminal losses, and the nervous complaints due to this genital affection, has employed against it a plan of treatment which consists in cauterization of the urethra. There is a much better mode of treatment, I think, for these complaints than the severe and rather dangerous one of cauterization, which not rarely causes a stricture. The means which I have found most available are:—Pressure on the prostate, whereby the congestive state of that organ is diminished. The same thing will happen when ice or a very cold douche is applied to the perineum. I have also often obtained a considerable amelioration, and sometimes a cure, by a medicinal and hygienic plan of treatment, consisting in the use of atropine, the ergot of rye, large doses of the bromide of potassium, with tonics. Atropine and the bromide of potassium have a specific action on the prostate and the genital organs; and so great is that power with the bromide, that it will reduce the pain and erec-

tion in chordee, and diminish if not abolish sexual desire. But the dose of the bromide, to produce these effects, must be a large one; for instance, a drachm twice a day. There is no danger in using it in such quantities, and the only effect which may be troublesome is that the patient may get very sleepy.

Tracheotomy, etc.—Tracheotomy has been proposed by Marshall Hall against epilepsy. But the spasm of the glottis for which the operation is advised is only a symptom—a result, and not the cause of epilepsy. It is, then, only of service as a temporary amelioration. I need not say here that the theory of Marshall Hall in reference to epilepsy is, in my opinion, entirely wrong. However, it may be well to be prepared to operate if an emergency should arise. Dr. Lalor, of Dublin, has ascertained that food is sometimes thrown from the stomach into the larynx and trachea in fits of epilepsy, causing death by asphyxia. Tracheotomy would, of course, be useful in such cases.

Extirpation of the Clitoris.—Extirpation of the clitoris for nervous affections is an operation which cannot be approved of on rational grounds. Mr. Baker Brown has been in the habit of treating several kinds of nervous affections by this method; but I cannot agree with him in thinking that it is a proper treatment, when there is not a manifest connexion between a morbid state of that organ and the nervous disorders. You know that onanism is a very frequent cause of nervous affections in women as well as men. There are cases on record, and others not published, in which that operation has not been attended either with a good effect upon the nervous trouble or upon the loathsome habit. I know several cases of this kind. That which I have found more serviceable when moral advice has failed, is the production of a sore close upon one of the parts handled, so that every attempt at friction will cause a pain compelling the patient to abstain from it. The sore must be kept open until the general health is sufficiently restored to allow the moral influences to be brought to bear upon the patient with good effect.

Extirpation of the Testicle.—As regards ablation of the testicles, I cannot speak in words of disapproval strong enough. It seems to be not only a very irrational but a barbarous procedure, and it was certainly so in most of the cases in which this operation was performed against epilepsy.

Section of Nerves.—One of the modes of treatment which have been found of great importance in the treatment of epilepsy, tetanus, and other complaints which are due to an irritation of nerves by a wound, a burn, etc., consists in the section of irritated nerves, at some distance above the wound or burn—*i.e.* between the point of irritation and the nervous centre.

Actual Cautery.—In regard to the use of actual cautery in nervous affections, functional and organic, I am sorry to say that this method of treatment, which is perhaps too much employed in France, is too much neglected in England and in this country. I have often applied the white-hot iron to the head of patients in the coma of apoplexy, of cerebritis, of uræmia, or of epilepsy, with almost always the good effect of freer breathing. Many patients have been aroused from coma by that means alone, and not a few have recovered, whose recovery was at least partly due to that mode of treatment. The application of the hot iron to the nape of the neck has been often found of signal service, in cases of any functional nervous complaint in which it may be found necessary to change the nutrition at the base of the brain. I hardly need say that the actual cautery is one of the best, if not the best means of treatment of neuralgia and rheumatic pains.

Application of Ice.—Opposite to this, but acting in the same way, is the local application of ice to the spine and various parts of the body. This plan of treatment has also been too much neglected. It may be extremely beneficial in a number of affections. Dr. Chapman, of London, has published some cases in which the beneficial results of the application of ice to the spine in certain nervous complaints have been very apparent. These cases are not so complete as one would wish to have them; still I have no doubt that the principle upon which he founds his plan of treatment is a tenable one. I have no doubt also, that ice to the spine in certain kinds of epilepsy, particularly in those cases where there is evidence of a spinal irritation, will be of real benefit.

Circular Blisters and Ligatures.—I come now to another method of treatment, which, according to the results of my own practice, is of considerable importance. When I began to have charge of an immense number of paralytics and epileptics at the National Hospital in London, I found that, in most of the cases in which ligatures are useful against epilepsy, they act in quite a different way than that which is generally admitted. I ascertained that it is the irritation of the nerves of the skin, and not a pretended obstacle to the passage of the so-called aura, which, in cases of an aura of centric origin, produces the good effects of preventing a fit or diminishing its intensity. I found that pinching, pricking, or a blow, acted almost as well as a ligature; and these facts, and others that I have not time to mention, led me to admit that an irritation of the nerves of the skin in limbs can produce a very favorable change in the state of the base of the brain, and also in the spinal cord. This view made me adopt a plan of treatment which has proved useful, not only in epilepsy, but in hysteria, in chorea, in trembling palsy, and in cases of congestion or inflammation of the base of the brain, or in cerebral meningitis. This plan consists in the application of blisters, one inch in width, all round a limb attacked with either paralysis, trembling, jerks, or pain, due to a congestion or inflammation of the nervous centres or their meninges. These circular blisters produce an irritation of cutaneous nerves through which a favorable change takes place in the circulation or nutrition of the nervous centres. This mode of treatment is generally much more useful than the application of counter-irritation to the head, the nape of the neck, or the spine.

Errhines.—There is another means of treatment which I cannot pass by without a notice, and that is the use of errhines. I am convinced that these are not employed as often as they ought to be. These medicaments are of special utility in cases of nervous affections (epilepsy, headache, congestion of the brain), attended with sensations of fulness, heaviness, tightness, etc., in the frontal sinuses.

Within the last few years subcutaneous injections of morphine, quinine, etc., have been very much employed. I will only say that this plan of treatment is a most invaluable one, and that it is absolutely free from any great danger if carefully employed. There is frequently, however, *some* danger, and medical men should be prepared for it. I do not mean to say that life is compromised by the treatment, but that phenomena will sometimes occur which may seriously compromise the reputation of the practitioner. I usually employ morphia, together with opium, in cases in which it seems useful to inject narcotics. The doses are from one-third to one-half of a grain of the sulphate of morphine, with from the one-sixtieth to the one-fortieth of a grain of the sulphate of atropine. I have for a good many years injected these narcotic salts together. Not that I believe that they are antagonistical in the way

that many suppose. I deny that a dose of morphine, able to destroy life, can be neutralized by any quantity of atropine. I have an opinion contrary to authorities in this respect. I have given a dose, by injection, to a dog sufficient to kill him in a certain time, and have immediately afterwards injected the prescribed amount of atropine to counteract it. I have seen most of the symptoms caused by the first alkaloid diminish in consequence of the action of the last injection, but death took place nearly at the same time as if I had not injected the atropine. My experiments prove that these narcotic remedies and poisons are not antagonistic as regards their deleterious, toxic, or poisonous effects, however much they are antagonistic as regards some of their effects on the nervous centres, the eyes, etc. They should be employed together, according to my notion, on account of their real antagonism, and also on account of the addition of the good effects of each of them to those of the other, against pain particularly.

I now pass to consider other remedies. The bromide of potassium is an invaluable remedy. The dose for epilepsy should be a scruple three times a day. The best time to give it is when the stomach is empty, so as to allow of its rapid absorption. But I have found that, in certain forms of epilepsy, the use of bromide of potassium alone is not so good as when it is combined with other remedies. The best remedies to be used, together with this salt, are the iodide of potassium and the bromide of ammonium. The iodide of potassium will not do much alone against epilepsy, unless it be due to syphilis, and then the dose must be extremely large; but if the bromide of potassium be added to a small dose of the iodide, the good effect of these two salts employed together will be increased, especially in cases of epilepsy allied with, or due to, a congestion in the base of the brain, manifesting itself either by a slight hemiplegia, or by other symptoms. These two remedies are very different in their action, although there are many physicians who believe that they are almost identical. Bromide of potassium produces anæsthesia of the throat and larynx, dilatation of the pupil, deafness, anæsthesia of the urethra, and a diminution of the sexual power, etc.; but none of these symptoms are produced by the iodide of potassium. On the other hand, the iodide of potassium will sometimes cure syphilis, while the bromide of potassium has no power whatever over that disease.

I said bromide of ammonium should be sometimes employed together with the bromide of potassium. There are cases of epilepsy in which the combined use of these remedies is of great value. In cases where there is suspicion of the existence of congestion of the base of the brain, and still more of a congestion of the spinal cord, or its meninges, the bromide of ammonium will give a decidedly greater effectiveness to the bromide of potassium.

The bromide of ammonium is a very valuable remedy in hooping-cough, as first shown by Dr. Gibb and Dr. Harley, of London. As I have named that disease, I may here mention that there are other modes of treatment of more value. One of these modes is by the use of atropine. But if you employ it you have to be by your patient, as it is necessary to give it in doses large enough to produce delirium, and to keep up that condition for three days, except at night. In the evening you may give morphine, or what is better, codeine, or narceine. This will procure a quiet night's rest. You must watch your patient to see that the delirium does not go further than it ought to. If you can get the consent of the parents to allow the use of this remedy, you may be able to cure your patient at the end of three days, as I did in a bad case of hooping-cough in my own child. I need not say that the bronchitis, allied with the hoop, will persist some time after the cessation of this nervous phenomenon. It will, however, be very hard work to get the consent of the parents if you tell them beforehand how the medicine will act; but some may give you a chance.

I will now say a few words on another remedy, which is too little employed; I mean the chloride of barium. I have given it in one case of trembling palsy with a very gratifying result. This is the only case of that affection in which I have obtained a complete cure. In some of the other cases in which I have tried that remedy, there was a marked amelioration of the symptoms. The dose of this remedy must be a large one—from half a grain to one grain three times a day. This is a dose which, according to writers on toxicology, might be sufficient to kill outright. I can only say that these writers are quite wrong. This remedy, in very large doses, has lately been employed with success in several cases of tetanus.

Codeine and narceine are remedies which I have used a great deal; more especially is this the case with the former. Codeine is a most valuable remedy to give a quiet night's rest. In this connexion I must refer again to the bromide of potassium as an invaluable remedy to produce sleep in persons who are wakeful on account of severe anxiety, grief, or any other moral cause. The dose too of this medicine must be pretty large. About four or five P.M. as much as thirty or forty grains, and another dose equally as large by eight or nine in the same evening.

I will only say a few words on two or three other remedies. In nervous affections, due to congestion of the kidneys, or of the ovaries, I have found the use of gallic acid in four or five grain doses, six times a day, of singular efficacy. It is much better to give it in frequently repeated doses than otherwise, as it is less apt to disturb the stomach.

The nitrate of silver has been considered a very excellent remedy in the treatment of that newly-studied affection, the locomotor ataxy. The great expectations that were entertained of its efficacy have not, however, been realized, and it has been found that instead of curing the majority of the cases, it has sometimes only succeeded in blackening the skin. It is, however, when used properly, of some value; but it should not be used longer than a month at a time, for by allowing an intermission, say of a month, it has pretty much as good an effect as when taken without interruption, and does not alter the color of the skin.

In conclusion, gentlemen, allow me to make this single remark, that in the treatment of nervous affections, you cannot search too diligently for their cause in all the organs of the body; and that far from the study being an exclusive and especial one, it is necessary, before undertaking to practise with chances of success in this department of the medical art, to have a knowledge of the diseases of every organ. The best specialist for nervous affections is he who joins to a specially extensive knowledge of all the forms and varieties of nervous complaints, a thorough acquaintance with all the general and special diseases and disorders of every part of the human frame in themselves, and particularly in their relations with the nervous system.

The Pulse at Different Altitudes.—In ascending into the air, the heart-beats increase 5 for the first 3,000 feet, 7 more for the next 1,500 feet, 8 for the next 1,500, and 5 for each 1,500 feet of ascent after that. This is an average increase of one beat for each 100 yards of ascent.

LARYNGOSCOPY.

BY J. SOLIS COHEN, M.D.,

OF PHILADELPHIA.

Any method of exploring diseased structure which shall remove from the mind uncertainty as to its character, is of immense value in the practice of medicine. Hence, the universally recognised importance of *physical diagnosis.*

When percussion and auscultation permitted the diseased heart and lungs to murmur their own tale of suffering to the listening ear, the correct application of therapeutics became at once more definite; and, since Czermak has instructed the profession how to obtain an insight into the condition of the larynx and trachea, and parts adjacent, laryngoscopy displays to our eyes in their true colors, the exact nature of many obscure maladies heretofore classed among internal diseases, but which are now recognised *during life* in the performance of various vital functions, and rendered amenable to treatment as accurate and precise as the operations of the surgeon upon external structures.

Laryngoscopy (*inspection of the larynx*) is effected through the medium of the laryngeal mirror, which, as all valuable scientific instruments should be, is exceedingly simple in construction. A small looking-glass fastened to a slender handle is passed to the pharynx, and held in such position that light falling upon it is reflected upon parts below, so that their image becomes mirrored on its surface. *This simple laryngeal mirror is the only essential instrument absolutely necessary for the performance of laryngoscopy.*

When the light of the sun is insufficient to illumine the mirror satisfactorily, artificial light must be resorted to; and may be employed directly, or concentrated by means of a lens or series of lenses placed in front of the flame, further aided and controlled, when desired, by the employment of a reflector.

The source of the light is not important. A steady, well directed light is far preferable to illumination more intense or brilliant, but unsteady or ill-directed. An ordinary reading-lamp, such as the coal-oil or petroleum lamp in common use in this country, will answer every purpose for ordinary examination; while those who prefer it, and have the facility, can employ the familiar gas-burner. Ordinary illuminating gas burns more steadily and brightly through an argand burner; and the light given by coal-oil can be increased by mixture with burning fluid, or by dissolving camphor in it (after the manner of the endoscopists), in the proportion of 10 or 12 grains to the ounce.

The writer prefers a petroleum light of the intensity of an argand gas-burner. The light is whiter and steadier, and softer than that of gas, while pleasanter to work by and fully as brilliant. There is no flickering, as in the escape of burning gas from a jet, no matter how controlled or protected; nor is there any danger of inequality of pressure at the gas-works to cause disappointment in the degree of illumination and its character.

Artificial light being more thoroughly under control, whatever may be the hour of the day, the state of the weather, or the location of the apartment in which the examination is to be conducted; and there being from natural causes some variation in the color of objects as viewed by natural or artificial light, it will be found preferable for those who desire to practise laryngoscopy extensively, to accustom themselves to the exclusive use of artificial light; for this will prevent any inaccuracy of judgment as to the true progress of a case examined indifferently by either source of illumination.

The intensity of the artificial light can be greatly increased by placing in front of it an ordinary plano-convex (bull's-eye) lens, from two and a half to three inches in diameter, the plane surface towards the flame at the proper focal distance of the lens; or a tubular or other shaped lantern to surround the light, with arrangements of achromatic lenses, may be constructed by those who desire to provide themselves with some of the refinements of the art. This is a fruitful field for display of taste, and almost every observer (Voltolini, Lewin, Tobold, et al. ad infinit.) who has written on this subject has devised an arrangement of lamp or lantern of his own, which gives a better and brighter light than any form or combination previously contrived by anybody else. The ordinary glass globe (Störk) used by the shoemaker, six inches in diameter, filled with water and placed before the light, will furnish a brilliant illumination at a distance of about twenty inches. This arrangement is much employed by Störk, Wagner, and others, for direct illumination.

Calcium lights, magnesian lights, Drummond (properly Hare) lights (Türck), photo-oxygen lights, a stream of oxygen passing through a photogen lamp (Voltolini), electric lights, and every other known description of lights, have been variously recommended in some one or other portion of the continent of Europe; but a good gas or lamp-light, such as one is accustomed to read or write by at night, is all that is required, and, concentrated by a plano-convex lens, will be found amply sufficient for all practical purposes; and where economy is an object, the glass globe filled with water, and supported on the ring of an ordinary retort-stand, affords an admirable substitute.

In using direct artificial light in this way, the rays pass to the fauces from the side, in order to secure freedom of movement to the operator, unless the light is placed between the operator and his patient, which is always inconvenient, and cannot be well done when the globe is used.

When the rays thus pass into the mouth from the side, from the conformation of the cheeks, some portions of the structures to be examined will at times be in shadow, for the whole of the larynx and its contents cannot well be illuminated at one time; and it may therefore become necessary frequently to alter the position of the light, the management of which, before a satisfactory examination will have been made, will become extremely troublesome. As it is often requisite to be enabled to shift the direction of the light promptly and readily, it will be found more convenient to employ a reflector which shall receive the rays from the lamp, and reflect them from before backwards to illumine the laryngeal mirror in position. A concave silvered ground-glass reflector, of about three to three and a half inches in diameter, and with a focal distance of from nine to fourteen inches, will be found the most convenient and perfect instrument for general use.

Borrowing the idea of the reflector from the ophthalmoscopic reflector of Rüette, many observers insist on the necessity of perforating its centre, or at least removing the silver coating, and looking through this exposed portion. If considered desirable to limit vision in this manner, the distinct perforation is preferable, as sight must certainly be clearer without any intercepting refracting medium. The conditions necessary for an examination of the fundus of the eye, and those requisite to perceive the image depicted on the laryngeal mirror, are entirely different; there are no series of refracting lenses intercepting a distinct view of the laryngeal image, which can be discerned with perfect distinctness even when the eye is at some distance from the margin of the reflector. Further, in practising auto-

laryngoscopy (inspection of one's own larynx) the use of the perforation of the reflector is wholly impracticable, as will be explained in treating of auto-laryngoscopy; and although the image, again reflected before being seen by the observer, is sufficiently distinct for the expert operator to demonstrate to others the whole contents of his own larynx, he will insist on the necessity of confining vision to one eye, limiting its range by a small opening, in examining the more perfect image of the larynx of a patient. Still, as the perforation does not injure the reflector for binocular vision at its margin, and an occasion may arise for putting the best eye forward for some rapid squint, it may be well enough for those who desire but a single reflector to provide themselves with one that is perforated.

When the direct rays of the sun are too strong to be well borne by the patient, or when it is impracticable to secure a comfortable position, a reflector may be employed with natural light also. In this case the surface of the reflector may be plane, and an ordinary toilet mirror will answer the purpose; but if the diffused light of a room is used, a concave reflector is necessary to converge the rays. Of course, it will be understood that in employing natural light, the position of the reflecting mirror, as well as the position of the patient, will have to be changed frequently as the day advances, unless an expensive heliostat is employed.

Semeleder "found it convenient to throw a cone of light into the room by means of a concave mirror attached to the window, upon which the sun shone; then to seat himself and the patient within this cone; to collect anew the diverging rays by means of the illuminating apparatus, and then to apply them to the examination. Thus we obtain a soft light which is not blinding, and with which one might work by the hour together."

Dr. Eben Watson, of Glasgow, found "that a range of houses opposite to his consulting-room window acts the part of a reflector, and saves him the trouble of using a metallic one."

The reflector may be placed before one eye (Czermak, Semeleder, et al.); in front of the nose and mouth (Von Bruns); or on the forehead (Moura, Johnson, Mason, etc.). It may be attached to a stem to be held in the hand (Babbington, Czermak, Türck, etc.); to a handle to be held between the teeth (Czermak); to a frontal band (Kramer); to a spectacle frame (Semeleder); to a horizontal arm coming from the illuminating apparatus (Tobold); to a tripod at the side of the patient (Türck); to a vice for fastening on the edge of a table (Fauvel, et al.); or to a portable telescopic stand. In every case, however supported, it should be movably attached to its support by suitable swings and hinges; or, what is preferable, by a ball and socket joint, so as to secure freedom of motion in any desired direction. When placed in front of either eye, which must then be applied to a perforation, the observer looks in the exact direction of the axis of the rays—theoretically, certainly, the most favorable position for accurate vision; but the degree of divergence between visual and illuminating rays is so slight when looking by the side of the mirror, or above or below its margin, that in the actual practice of laryngoscopy it is not really a matter of much importance. The desired object is to secure a distinct view of the image depicted on the mirror held in the fauces, and so that this object is attained, every one will prefer that arrangement of reflector to which he first takes fancy, or to which he becomes earliest accustomed.

There is certainly some advantage to be gained in attaching the reflector to the observer's head; the direction of the light can be altered readily, and it soon becomes comparatively easy to follow with the head the movements of the patient, so as to keep the light reflected on the fauces; but the writer prefers to teach his patients to keep their heads still; and after they have learned this first lesson, examination and the application of instruments are effected much more easily and satisfactorily than when the doctor has to keep bobbing his head about after that of the patient; to say nothing of the lack of dignity in thus attempting to follow the movements of a fractious child, or a mischievous one, who will move his head purposely; besides, after once permitting a patient to exercise a considerable degree of latitude in moving his head, it will be found much more difficult to teach him to keep that organ still, than when this necessity had been quietly impressed upon him from the very first interview.

Nor is it necessary to confine the patient's head as in a vice, though this has been done; but if he is informed that it is important that he should keep his head still during the examination, so that the light can remain properly directed, it is rarely that a little patience will not accomplish the object.

If attached to the head of the operator, the reflector will be much more conveniently placed in front of the forehead than before one eye; as it is less difficult of adjustment, and does not impede the use of either hand; while it certainly presents a more elegant appearance than when stuck in front of the nose. Semeleder's spectacles are preferred by a great many operators, but considerable practice is necessary to become thoroughly at home with them. Semeleder's reflector is perforated, but if it is to be worn in front of the forehead or nose, there will be no necessity for the perforation. It is certainly easier to manipulate the laryngeal mirror or instruments with the eye removed from the perforation of the reflector whether attached to the head or on a stand; and the tyro is apt to miscalculate his distances when first attempting to introduce an instrument with one eye confined to a small opening; even if monocular vision is as satisfactory as the natural binocular vision. In the examination of patients confined to bed, whom it may not be desirable to raise from the recumbent position, the reflector attached to the forehead will be found very convenient, especially when artificial light has to be held in one hand; and it is also exceedingly useful to lighten up the parts for the examination of the mouth and contents in ordinary practice, as has often been done less commodiously with a hand mirror, leaving the hands free for other purposes, and enabling satisfactory examination to be made promptly without too close proximity to the foul breath so frequently accompanying malignant and other diseases.

Czermak's method of holding between the teeth a plate to which the reflector is attached by a stem, is objectionable, inasmuch as the effort of keeping it in position is annoying, tiresome, and awkward; besides rendering it difficult for the examiner to give directions to his patient, which are often highly necessary to obtain certain muscular movements of the larynx and other parts, to bring into view structures which would not be seen otherwise.

The form of the laryngeal mirror is not a matter of much importance. Circular mirrors appear to be more readily borne by a greater number of patients than those of other shapes; but the square mirror, with the shank attached to one corner, is probably used as frequently; and oval mirrors are of advantage in cases where the tonsils are swollen, or where the fauces are too irritable to permit the introduction of a circular mirror. Many other forms of mirror have been employed. Thus, there are elliptical, rectangular, pyriform, lozenge-shaped, dome-shaped, heart-shaped, etc., etc.; but for constant use the circular mirror will be found able to meet all indications presenting.

The diameter of the mirror may vary from half an inch to an inch and a quarter or more; the larger the mirror that can be employed in any particular case, for obvious reasons, the better. The mirrors most in use are made of glass, coated with quicksilver or amalgam; but when the glass is ground and silvered, the reflecting surface is very fine. The mirror should be perfectly white, and then objects will appear in their natural colors; quicksilvered mirrors have usually a bluish ground, and many have a yellowish tinge, which will of course affect the correctness of the image. Only the finest white glass should be employed in their construction. Mirrors were first made of metal, and highly polished steel forms the best metallic mirror; though they may be made of silver, speculum metal, or copper plated. A glass mirror is much clearer than a steel mirror, and has a greater reflecting power; it can be made to have a clear white ground, while the ground of the steel mirror is of a dark bluish or violet color; but in steel mirrors there is no refracting medium above the reflecting surface, of which, too, there is no space lost in the setting; still as they rust easily, soon become scratched, altered by heat, spoiled by the spattering of secretions from the mouth or throat, or from particles of corroding solutions which may be used in medication, they are difficult to keep in good order; and are therefore most applicable to special cases when but a small mirror can be employed, and it is desirable to avoid the loss of reflecting surface caused even by a narrow setting.

The most convenient angle at which the mirror can be attached to the shank, which should be of pretty stiff wire, will be found to be about 125°; but the exact angle its reflecting surface, when introduced, should bear to the laryngeal aperture will depend much upon the natural conformation of the parts (for they differ in individuals as well as outward structures), as also upon the degree of flexion of the head, the positions of the reflector, and the eye of the observer, etc.

This will all become regulated intuitively as practical acquaintance with manipulation is acquired.

Original Lectures.

ON CHOLERA.

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Lecture VII.

Fatality of Cholera.—Influence of Age and Sex on the Liability to the Disease.—The Treatment of Cholera by Opium, Stimulants, Blood-Letting, and Calomel.

I have but a few considerations more to present to you relating to the general history of cholera.

The fatality of the disease in relation to the number attacked, is a problem not easily solved. During an epidemic, hospitals are numerous; officers in each desire to excel those of the others in the number of their cures. Some have a favorite plan of treatment, which they sometimes allow themselves to magnify at the expense of truth. Then there is a lack of uniformity in the character, or rather condition, of the reported cases. Some physicians report everything that is marked by diarrhœa in a cholera season. Others enter as cholera only the cases in which the diarrhœa has become watery, and is attended by vomiting and cramps. But from the best reports we can find, I think we may say about one-half of those admitted into hospitals die. Yet in Paris, in 1832, in the early period of the epidemic, Drs. Pinnock and Gerhard inform us that of the first ninety-seven cases received into the Hotel Dieu, ninety-six died. They state that these were not in the practice of any single physician, but were distributed through the hospital, and treated by some of the best physicians of that city. They further add that this extreme mortality was nearly or quite equalled in the principal hospitals of Paris at that time. At other times we hear reports of small numbers treated, even in the state of collapse, all recovering. But it cannot be doubted that a very large majority of those who pass into this stage die, whatever may be the plan of treatment adopted.

It appears from statistical returns that the cholera of 1832 attacked in France, exclusive of the military, 230,000 persons; and of these 95,000 died. This is a proportion of one in 2.42. In Quebec in 1832 the reported cases were 5,783; deaths, 2,218; being one in 2.50 of those attacked. In Montreal the deaths were 4,420, or one in 2.50 attacked. In New York they were reported one in two. In Philadelphia 2,314 and 935, or one in 2.50. In this connexion it is important to make a distinction between the cholera cases treated in public institutions and those treated in private houses. The Philadelphia physicians report that of eleven hundred and seventy-five cases in private practice, two hundred and seventy died, and no more; making a mortality of one in four and three-sixteenths. In general there is no doubt but the mortality in private practice is very much less than in hospitals. The proportionate mortality is almost always greater in the early period of an epidemic, and for any one locality attacked this greater fatality continues eighteen to twenty days, when the type of the disease usually becomes milder. At each new locality in a city where the disease appears, the same thing is noticed; so that the stage of the epidemic should be stated in comparing the fatality in different returns.

Dr. Baly has published a table, showing the danger to life during epidemics, from which I give the following extracts:

CHOLERA,

DEATHS FROM, IN TEN THOUSAND LIVING IN VARIOUS CITIES.

		Through the whole epidemic.	In most fatal month.
London,	1831–2	37	9
"	1848–9	61	22
Liverpool,	1848–9	163	61
Hull,	1849	236	167
Sunderland,	1848–9	55	18
Belfast,	1848–9	154	42
Dublin,	1849	69	20
Glasgow,	1848–9	35	19
Paisley,	1848–9	30	21
Paris,	1832	235	162
"	1849	182	82
Berlin,	1831	52	23
"	1832	16	9
"	1837	80	41
"	1848	34	19
Cronstadt,	1831	546	509
Stockholm,	1834	452	421
St. Louis.	1849	535	212
New York,	1849	112	58
Philadelphia,	1849	29	20

The rate of mortality is here shown to be lower in

London than in any large city in the list, except Philadelphia. London boasts of lower death rates from general causes than any European town, and has taken great pains to relieve itself of the causes of all preventable diseases. The ratio of deaths by cholera to the number of persons living in London in 1831–2, was about 1 in 270; for the epidemic of 1848–9, 1 in 164; the latter continuing fourteen months. The highest death rates given in this table were noted at Cronstadt; viz. 1 in 18 nearly, and all in a little more than one month. The next was at St. Louis, during about eight months of 1849, 1 in 18½; while during six months of 1849 in this city there was 1 death to 89 living; in 1832, 1 to 62; and in 1854, 1 to 240. In Philadelphia during four months of 1849, there was only 1 to 345. The death rate from all causes, exclusive of cholera, in New York, varies from 1 in 25 to 1 in 40. The chances of death by cholera in New York have never been equal to the risk from other diseases in any year. In 1854 it was only about one-eighth the general risk; in 1849 about one-third; and in 1832 only a little over one-half. In other words, in the worst cholera that has yet visited this city, any resident was in much greater danger of dying from ordinary causes during the year than of cholera during the epidemic; and in the last visitation the general risk was nearly eight times greater than the special. This mode of viewing the subject may well give confidence to timid and anxious persons whose duties confine them in town during an epidemic. Men in health do not contemplate with alarm the chances of their own death within a coming twelvemonth; why should they not meet with equal calmness the smaller risks of an epidemic cholera? It does indeed become alarming when, as in Sandusky City, it sweeps away one-third of the population; but Sandusky suffered the extreme of mortality. The disease has not visited a large European or American city with any approach to such malignancy. The death of one in eighteen at Cronstadt was probably owing to removable causes; but a nearly equal mortality at St. Louis, being greatly among emigrants, was not wholly within the remedial reach of that city alone. The lesson which these considerations teach is to prepare for a threatening epidemic by cleansing in-doors and out of doors; removing every possible cause of insalubrity; putting the poor into the best condition to resist the attack; excluding, as far as possible, the approaching disease, and await with calmness the issue.

The estimates which I have here presented to you, do not quite cover the whole ground. Diarrhœa, and dysentery, and cholera-infantum are generally more fatal in cholera seasons than in others, while cholera-morbus is probably charged with a part of the mortality produced by the epidemic. Thus in 1832 the mortality from cholera-infantum exceeded the average of the two preceding years by 164 deaths; that from cholera-morbus by 83; while the deaths from diarrhœa and dysentery fell short of a similar average, respectively 8 and 6. Thus we have 247 deaths to add to the 3,513 caused by cholera. This will increase in a slight degree the epidemic risks of that year. In 1849, by comparison with the average of the two preceding years, the deaths by cholera-infantum were increased 328; by cholera-morbus, 179; by diarrhœa, 278; and by dysentery, 558; in all, 1,361 deaths to be ascribed to the epidemic tendencies, and to be added to the 5,071 by cholera; but with this addition the risk of death by choleraic influences that year was less than half the risk from other causes. The account for 1854 stands thus: Deaths exceeding the average of the two preceding years by cholera-infantum, 607; by cholera-morbus, 214; by diarrhœa, 580; by dysentery, 913; in all, 1,492. Add this to the cholera mortality, 2,509, and it will make 4,001 deaths in a population of 600,000, or 1 in about 150; from one-fourth to one-fifth the usual annual risk. These conclusions will be again somewhat modified by making an allowance for those who leave the city during a pestilence. But almost all New Yorkers who are able to do so leave the city every summer, so that the difference between a cholera summer and a summer of usual healthfulness is not, in this respect, very great. There is a more striking difference in the absence of non-residents, who in healthy seasons fill the hotels. But data cannot be obtained for any accurate estimates on either of these points, and I have thought it better to rest the calculations on the actual or estimated population of the city at the time of the epidemic invasions.

As to the influence of age on the liability to cholera, a word. It has been stated that the extremes of life are exempted. The error of this statement is patent to every physician who has seen much of the disease. The truth is, that both children and aged persons, in proportion to the number living, are more likely to die of cholera than the middle-aged. If you refer to the *Registrar-General's Report on Cholera in England*, 1848–49, p. 41, you may discover that the disease carried off 14,718 persons under 15 years of age; 30,628 between the ages of 15 and 60 years; and 7,901 who were 60 years old and upwards. Two of these were men aged 95 years and upwards. The Registrar is disposed to add the deaths from *diarrhœa* to those caused by cholera, in the belief that they are to be referred to the same cause. Of these there were 12,852 among children, or persons under 15 years of age; 2,633 between the ages of 15 and 60; and 3,398 of those who were 60 years old, or upwards. The fatality of diarrhœa, in cholera seasons, is made very striking by these figures. Combining these diseases, he rates the mortality of children under 5 years of age—boys at 88, and girls at 78, in 10,000 living. The proportionate mortality then declines rapidly between 5 and 10, but begins to rise again between 25 and 35, when it is about 31; between 35 and 45, it is 41 and 44 for males and females respectively; and above 45, for successive periods of ten years, it is 54, 70, 92, 114, 135, in 10,000 living of corresponding ages. Persons aged 85 to 95 living in England in 1849 were greatly more in danger from cholera and choleraic diarrhœa than persons of any other age, except, perhaps, the few who had passed this decennary; and we have to descend in the scale to about 70 years of age before we find the liability reduced to the level of infancy.

The disease falls with about equal severity upon the two sexes. In England during the epidemic of 1849 the deaths from cholera among males were 26,108; among females 27,182; from diarrhœa 9,637 males, and 9,250 females. So that from the two affections together 687 more females died than males. This does not imply greater liability to the disease on the part of females, for in countries not recruited by immigration, that portion of the population is greater than the males. In England, by the census of 1851, in a total of nearly 18,000,000, the number of females exceeded that of the males by 397,592. Indeed the balance is slightly against the males, for the report shows 1 death among 331 males, and 1 among 333 females. Notwithstanding this general equality, in different places, and in different months, the proportions varied considerably. It varied also at different ages. Thus 7,673 boys died of cholera under the age of 15 years, and 7,045 girls; or, including diarrhœa, the mortality was as 88 to 78. But from 25 to 45 years of age the mortality was greater among the females; between 35 and 45 it was as 44 to 41.

The only other statement I wish to make to you in

this connexion is that cholera does not protect against itself. It is true of most contagious diseases, that having once gone through them, the person is in a great degree protected against another attack. It does not seem to be true of cholera that a second or even a third attack may not follow the first. This fact has been made prominent by some observations of Mr. Barth in the cholera that has lat ly prevailed in Paris; and it has been noticed by a considerable number of observers.

We now come to considerations for which you have all been waiting with anxiety, if not with impatience. It is in the treatment and prevention of disease that our profession demands and receives the homage of the public. In our studies, however profound, however exhausting, so long as they are confined to the nature of diseased action, we are hidden from view; we awaken no outside sympathies; we strike hands with no common interests; the period of benefaction on the one hand, and of interest, or perhaps gratitude, on the other, has not been reached. We are not of the public, and have no hold on the public heart. The tree must grow, must even mature its fruit before it attracts the public eye, before it can supply the public want. It is by the qualities of this fruit that the culture is to be judged. The student naturally feels that if he has not acquired the art of curing, his science is of little value. This, too, is the judgment of the public, both forgetting that facts once demonstrated and recorded are something rescued from primeval chaos, and when incorporated with facts yet to be discovered may become the basis of the highest art. Yet I cannot say that I approach this topic with cheerfulness, but I am not humbled because we cannot cure cholera. I do not recognise any *opprobrium medicorum*. When I remember that within three quarters of a century, by the direct and indirect influence of medical men, human life has been prolonged an average of ten years, I am proud of my profession. I am as willing to contemplate what it has done and can do, as what it has not done—perhaps I should say what it cannot do. It has not achieved impossibilities; but if it has not in all things conquered success, it has done what an ancient general regarded as more meritorious, it has deserved success. It has at least expelled the word *opprobrium* from its vocabulary. Death is a law of life. The death of the individual is a condition necessary in the multiplication of the race. Death is inexorable, perhaps because the experiences of life and after-life are bequeathed to the greatest number. There are diseases over which the profession has gained little control, and there probably will be till time ends. I do not, however, believe that cholera is for ever to defy remedial efforts, notwithstanding the little that has yet been accomplished. They are chronic diseases mainly which have received the epithet incurable.

My aim in leading you to the consideration of the treatment of cholera is to tell you what has been done uselessly in former epidemics, that you may not lose time and human lives by following such theoretical suggestions as have been found to be fallacious guides; and to glean from the voluminous and conflicting testimony, often questionable in its correctness, through the bias of preconceived opinions, oft n untrue through perversions of facts to sustain theories, or to gratify personal vanity in making better returns than a rival is expected to make; to glean out of all this confusion what little there is that can diminish suffering, and improve, though it be only in a limited degree, the chances of recovery.

The first thought that presents itself to us in this connexion is the fact that internal medication can produce but little influence in the later stages of the disease. The extreme congestion of the vessels of the stomach and intestines, the viscid condition of the blood, the impeded circulation in the capillaries, will render the absorption of medicinal agents exceedingly slow, and in many instances impossible. Notwithstanding Majendie discovered the odor of camphor and of other odorous substances in the breath of cholera patients after they had been administered by injection, experiments by Duchaussoy seem to show that the most potent medicines may be given in doses ordinarily dangerous and produce no material effects. Indeed the whole history of the treatment of this disease leads us to suppose medicines incapable of producing their usual effects. Extract of belladonna has been given in six, eight, and twenty-two grain doses, and no effects have been observed from it. Heroic medication but causes the accumulation of drugs in the intestinal canal, and there they are left to operate upon the system if reaction occurs, or they are swept away by the abundant discharges. This is one great embarrassment in the treatment of the disease in its later stage. Keeping this fact in view, we may do well to look over some of the plans of treatment that have been adopted.

I call your attention first to what may be denominated the opium treatment. Opium has frequently been given in very large doses, and it has always, I believe, failed to cure. By this I mean that persons treated with this drug, though some of them may have recovered, do not present a favorable average of recoveries; and it is the almost universal opinion of those who have had most experience, that except in the initiatory stage, during the diarrhœa, opium does harm rather than good. I was called, during one of the later invasions of the disease, to see a distinguished gentleman in this city who had gone into the country, and was there attacked by cholera. The local physicians had conceived that they might control the discharges by opium, and had given it freely. He had passed through the collapse and had come into the stage of reaction, but was then fully narcotized, and he died apparently from the combined effects of the opium and urea in the blood. This fact you have already become familiar with, that opium may not be administered with great freedom where uræmia exists. Opium is doubtless serviceable against the premonitory or initiatory diarrhœa. I believe there is as much uniformity in the practice of the profession regarding its use then, as there is in discarding it afterwards. In the administration of such doses as have sometimes been prescribed you may easily comprehend that accumulations may occur and produce their disastrous effects after the circulation becomes more natural.

Regarding alcoholic stimulants, no physician can for the first time approach a person who is lying prostrate with cholera in the period of collapse, pulseless or nearly so, his hands and face cold, his countenance leaden, his features pinched, and not have suggested to his mind some powerful stimulant to restore force to the heart and quicken the sluggish currents of the circulation. Stimulants have been used with great freedom, and without going into details I will state that except in small quantities, in the initiatory diarrhœa, or possibly when injected into the bowels, the general view is that they are not serviceable, that they cannot accomplish any good results.

Next, is blood-letting beneficial? One of the first plans of treatment, both in India and in Europe, was to bleed the patient whether early or late. From what you already know of the condition of the circulation in the later stages of cholera, you will comprehend that bleeding is difficult in most instances; often a vein is opened and no blood will flow, and no rubbing of the arm, no warming of the patient, will induce it to flow in any considerable quantity. Under other circum-

stances it is noticed to flow with moderate force, and in moderate quantity, but always comparatively slowly; and it is always dark in color. Bleeding in the early stages will, of course, approach more and more nearly to bleeding as practised upon a healthy person, and it has been practised in all stages of this disease. I have made a succinct record of certain facts calculated by Drs. Baly and Gull in their valuable report, which I will read. Dr. Brown tried bleeding on the recommendation of the physicians of India, but found its effects invariably pernicious. Observe how this statement contrasts with the next. Dr. Strange says that in many cases of approaching collapse, all the symptoms yielded after a bleeding of from eight to sixteen ounces, followed by iron and quinine. What are you going to do with testimony so conflicting? Call other witnesses and let them tell what they have seen. Dr. Muller, of Riga, reports four persons bled while the pulse was still marked at the wrist, though feeble. Increasing collapse followed immediately, and all died. In ten persons, after from eight to ten ounces had been taken in full collapse, in only three were the patients made decidedly worse. Out of twenty-three others, after bleeding there was a favorable change in eight; but in most there was increased debility, full collapse, and death. In the Nicolai hospital six were bled, and five fell into coma and died. One recovered, he was in the first stage. Dr. Zeroni bled nine in collapse or impending collapse, and but one recovered, and he was bled but four ounces. Several of the bleedings were small. Mr. Bell is an advocate for bleeding, and here are his figures. Bled forty-four in the first stage, seven died; bled six on the verge of collapse, all died; bled nine in collapse, and seven died. And yet Mr. Bell is an advocate for bleeding. Dr. Haycraft relates a case of severe cholera in which cups applied unexpectedly drew eight ounces of blood; the patient felt immediately relieved, but died five minutes afterwards. In the consecutive fever even it seems the abstraction of blood is pernicious, or at least must be practised with a great deal of caution. In sixty-nine cases treated by depletion, local or general, Dr. Muller records forty-eight deaths. Even in the pneumonia of reaction, where, if anywhere, you would suppose it possible to bleed with advantage, there is the following record: Of eighteen cases of pneumonia, in the consecutive fever, six treated by bleeding all died; while of twelve not bled, five died and seven recovered. On such showings as these, blood-letting has pretty generally fallen into discredit. Mr. Bell lost, in forty-four cases of preliminary diarrhœa, seven. This is certainly more than I should desire you to expect to lose by milder treatment.

Before leaving this topic I must not fail to say that Dr. Geo. Johnson, to whose opinions on the pathology of cholera I have already called your attention, appears within the present year as an advocate for bleeding, and he quotes from physicians of India ("Notes," etc., p. 20 and onward) a very eloquent defence of the practice even in extreme collapse. He does not urge it as an eliminative measure, but he says, "by lessening the over-distension of the cavities of the heart, it increases the contractive power of their walls. The symptom which appears to call for venesection and which has most commonly been relieved by it, is rapid breathing, with an oppressive sense of suffocation. When, with these symptoms, there is a cessation of vomiting and purging, which is probably a result of the almost complete arrest of the blood in the lungs, I believe that venesection affords the only hope of benefit. If during the last epidemic I had known as much of the essential cause of collapse as I now do, I believe I could have saved some patients, who for the want of that knowledge were lost." Whatever may be said of this theoretical argument for bleeding under particular circumstances, it is clear that the good results, reported by the physicians of India in its indiscriminate use, have not been confirmed in Europe, while among the authors in this country I do not remember a single advocate of it.

Among the drugs used in the treatment of cholera, calomel has figured more conspicuously, I had almost said, than all other medicines put together. I shall have to take a little time to give you a correct view of the whole matter. It has been given in small doses and in large doses. Dr. Pereira, in the first edition of his Materia Medica, refers to the treatment of cholera by one of his personal friends in St. George's Hospital, who lost none, or next to none, when he gave drachm doses of calomel. Nobody, so far as I can discover, has been able to repeat that success. I have tried it and have failed. I have not had any "luck" with calomel in any mode of administering it. Some of you are acquainted with my views of the abuses of calomel. I regard it, not as an enemy to man, but as an agent that can be used less than it is with advantage to man.

With reference to the administration of it in large doses, it is reported that this drug was given in Charity Hospital, New Orleans, in 1849, to one patient fifty grains, repeating it in two hours; to another ninety grains in three doses, within four hours; to another, one hundred and twenty grains in one dose; to another, one hundred and fifty in one dose; to another, one hundred and eighty in one dose; and to two others, two hundred and forty grains, or half an ounce, in a single dose. This is sufficiently heroic. Ten patients were treated in this way. Four of these ten were in collapse, but not pulseless, when the treatment was begun; they all died. Six were not regarded as in any very great danger; of these, one died and two were badly salivated. The treatment did not in any single instance check the purging or vomiting. Dr. Buell reports, that of the five cholera hospitals in New York in 1854, the treatment in one was by large doses of calomel, I suppose sixty grain doses, and the result, he states, was that ninety-three and a fraction in the hundred of the patients died; being, he says, the largest mortality that occurred in any hospital in the city. Dr. Houston, in the paper I have already quoted, says he saw a recovery from the middle period of the second stage of cholera "under the weight of an ounce and a quarter of calomel in three doses, given within twelve hours." Generally, when physicians have tried these large doses of calomel, they have abandoned them. You will hear something more on this subject, as I go on to speak of what is called Ayre's treatment.

Dr. Ayre urges the use of calomel in *small and frequently repeated doses*. His opinions and plan are so generally known to the profession, and by many received with so much favor, that it becomes us to make a little inquiry into the success of that plan. That you may understand it, I will read you in his own language the doctrine upon which he rests his particular views:

"Cholera morbus (meaning Asiatic cholera) consists," he says, "in an interruption, and in its malignant form, in a sudden and entire cessation of the secretion of the liver; and primarily as a result of it, of a congestion of the portal circle or secondary system of veins of the liver; and in the malignant kind, successively of those veins of the abdominal viscera, and of the vertebral column, whose venous circulation is associated with them."

"The congestion of these important systems of veins becomes the cause of a diminution, and, in the malignant type of the complaint, of an entire suppression of the secretion of the kidneys," etc.

"The suppressed secretion of the liver forms the essence of the disease, the restoration of this secretion forms the remedy for it, and the agent by which this is to be produced must act upon the stomach and immediately through it upon the liver."

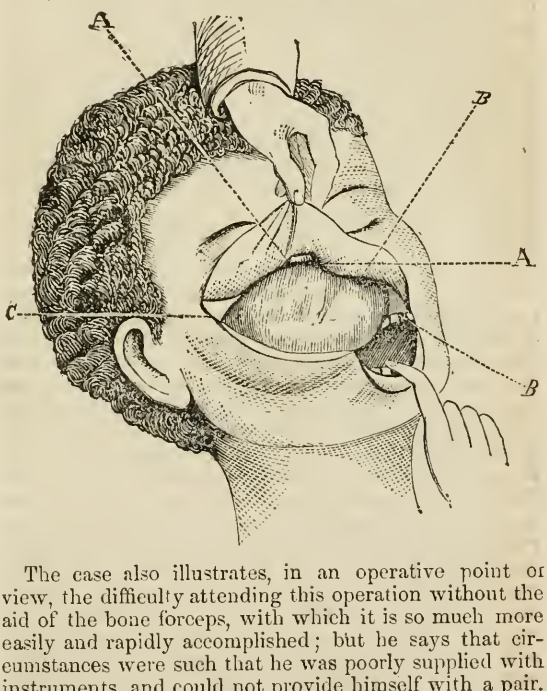
Now, is this a correct reading of the facts? In the first place, is it true that there is a suspension of the secretion of the liver? Certainly, there is no claim that there is any such suspension, or even diminution, during the preliminary stage. That stage is characterized as "bilious diarrhœa." During the rice-water discharges, I have already told you what is the fact—that bile exists in the discharges, but not in its usual form; it does not answer the common tests; it has undergone some change, but is still recognised by Professors Parkes and Simon as bile, which has undergone no other modification than is common in typhoid fever, and occasional in persons who make no complaint of illness. There is still bile there, except only during the very height of the disease. If suspension, or diminished secretion of the bile, is essential to cholera, it must begin at the beginning of the disease. That does not seem to be the fact. Then, again, as to hepatic congestion; you will perhaps recollect what has already been stated upon this point. The liver, as found after death, is *not* congested, but often quite exsanguinated. As to bile, I have referred to the fact, that after death the gall-bladder is found well filled, and sometimes greatly distended, and that its contents are, for the most part, apparently healthy bile. It stains the diphtheritic patches on the intestinal mucous membrane. The basis, then, of this system does not seem to be stable. Dr. Ayre gives calomel in the preliminary stage in doses of one grain with two or three drops of laudanum hourly, or every half hour, six or eight times; then every six or twelve hours. In collapse, one grain is made into a pill with bread, rubbed into a mucilage with gum arabic, in such quantity, that when dry, the pill will weigh a grain and a half. Such a pill is to be given every five minutes, and with it one drop of laudanum, or of the sedative liquor, in a teaspoonful of cold water. In severe cases, two grains may be given every five minutes for an hour or two. Dr. Ayre, in reporting upon his success, states that he has treated 3,039 persons affected with the preliminary diarrhœa, and with impending collapse, 133 being in the latter condition, and had lost only six of these. In full collapse, he has treated 725, of whom 365 died. Dr. Gull has collected the opinions of a considerable number of physicians who have depended on calomel as their chief remedy, a few following Dr. Ayre's plan strictly. Thus, Dr. Oke treated forty cases by it, and found that in children it was successful, and among adults in collapse, he saved about one-third. Dr. Merry, out of 52 cases, thinks he has saved forty by Dr. Ayre's plan, somewhat modified. Dr. Chambers has had 30 cases and eighteen recoveries; but he gives the calomel, five grains at first, and then two grains every half hour. Dr. Shillitoe has tried the plan, and doubts it and all other plans. Mr. Taylor, of the Liverpool Fever Hospital, thinks it is the best treatment in the serous diarrhœa. Mr. Perry approves Dr. Ayre's plan, but prefers to omit the narcotic; he, however, found nothing efficacious when the collapse had fairly set in. Mr. Roberts had 11 cases and eight recoveries. Three of these patients were moribund, or apparently so, when first seen. Dr. Shapter thinks, that on the whole this plan of treatment leads to less fatality than any other. Dr. Statter had 19 cases and eleven deaths. Calomel was tried in all, more or less. Ayre's plan failed with him. Mr. Mallet gave calomel in small and large doses, but all in vain. Dr. Wood tried calomel in large and small doses without satisfactory results; he did not see the advantage of the plan. Mr. Hovell tried it, in small and frequent doses partially, but with no good results. Mr. Brainbridge tried Dr. Ayre's plan in 3 cases; all died. Dr. Lewis tried small and large doses, but it was totally useless. Dr. Davies, prepossessed in favor of the plan, gave calomel in two and a half grain doses, and nine out of 10 died; he then combined it with opium and camphor, and in 33 cases twenty-four died. Dr. Parkes tried a similar plan in India, and found it of no use; he tried Dr. Ayre's plan in a few cases without striking benefit. Large doses, in his view, were hurtful. Dr. Raynor could not save his patients in collapse, by Ayre's plan, but thought the collapse prolonged. Dr. Barclay had 8 cases and five deaths. Of the three recoveries two were mild. Dr. Reid had tried Ayre's plan faithfully in 7 cases, and all of them died. Dr. Hill had applied Ayre's plan, to the letter, in 12 cases, and had had twelve deaths. Dr. Blackall gave calomel, in five grain doses, to 52 patients, the interval generally half an hour, in ten cases a quarter of an hour, in three an hour, and in two cases two hours: to 14 others he gave twenty grains every half hour, to 1 ten grains, and to 1 thirty grains every three hours; fifteen were not in collapse, and fourteen of them recovered; fourteen were in slight collapse, and twelve recovered; twenty-three in marked but moderate collapse, eleven recovered; eighteen were in extreme collapse, two recovered, and sixteen died. Dr. Fearnside treated 10 cases with small doses, four died and five recovered; among the latter, two were very mild; one was salivated. At Melville Hospital, Dr. Ayre's plan was strictly followed in 4 cases; they all died. Mr. Livett treated 9 cases with small and frequent doses, combined with a small proportion of opium; all, but a boy of fourteen, died. Dr. Shapter's 11 cases, treated with small doses, gave six favorable results. Mr. Williams treated 16 cases principally with calomel, twelve died. I have omitted most of the instances of Dr. Gull's list in which treatment by calomel was combined with other important agencies.

Figures are very uncertain guides in the treatment of such a disease as that we are studying, but, by their showing, in these statements, *calomel is not triumphant.* It holds the place it has heretofore occupied, in the treatment of cholera, by a very feeble tenure. Large doses are very generally condemned; small doses hardly get a majority vote. I am not willing to say that Dr. Ayre's plan must be abandoned. It has been tried and abandoned by some, because its benefits were not a compensation for the inconvenience to the patient of taking medicine so frequently. It has been tried and abandoned by others because it failed to cure. Yet, there are those who believe it will save more lives than any other mode of treatment. True, its theoretical foundations have crumbled, but many medicines maintain a high position in the list of remedies, and yet theory fails to explain their mode of action; Dr Ayre may have instituted a good plan of treatment on an untenable theory. The question, then, is on the merits of the plan. Is calomel serviceable in the treatment of cholera, however administered? It is remarkable, after the administration of countless pounds of this drug, in every conceivable way, in England, India, and this country, that the question cannot be positively answered. Dr. George Johnson believes that the medicine acts as a cathartic, and claims "the reported success of the calomel treatment as evidence in favor of elimination." Is the *reported success* worth claiming? If we ever learn the natural fatality of cholera uninfluenced by treatment, these questions may be intelligibly answered.

Progress of Medical Science.

Mortality of Children in Europe.—A paper was read at the last meeting of the Statistical Society of London, by Dr. W. Farr, F.R.S., on the "Mortality of Children in the Principal States of Europe." The proportion of English children, he said, who die in the first five years of age is very large, and one of the causes of this great loss of life, among the poorer classes especially, is want of care and attention by reason of the absence of the mother at work in the field or in the factory, often at the precise period when the child most needs constant looking after. Illegitimate children are, for obvious reasons, almost exclusively the victims of infanticide, but the number of deaths from that crime, he alleges, is inconsiderable in comparison with the number of untimely deaths from other causes. None of the States in Europe outside of England publish an account of the causes of death of the entire population, so no comparison can be made in that respect; but data have been obtained from official sources from which an accurate view of the loss of young lives in Europe from all causes can be given. The facts do not at all refer to the same period, but range variously from 1851 to 1863 in the different countries. The birth rate in Italy and Prussia is 39 per 1,000 of the whole population; Spain and Austria, 37; England, the Netherlands, Denmark, and Sweden, 34; Norway, 33; Belgium 30, and Spain, 26. The annual rate of mortality of children under five years of age, per 1,000 of the population of the same age, is in Norway 41; Sweden, 51; Denmark, 53; England, 68; Belgium, 75; France, 79; Prussia, 82; the Netherlands, 91; Austria, 104; Spain, 112, and Italy, 114. In England the mortality of children under five years of age is 101 in thirty large town districts, while in the sixty-three healthy districts of England it is only forty. Of 1,000 children born alive in Norway, 833 attain five years of age; in Denmark and Sweden, 797; in England, 736; in Belgium, 733; France, 711; Prussia, 683; the Netherlands, 673; Austria and Spain, 637; Italy, 606; Russia, 603; in the sixty-three healthy districts of England, 823; and in thirty large town districts of England, 645. Consequently the proportion of deaths out of 1,000 children born alive is in Norway 167; Denmark and Sweden, 203; England, 264; Belgium, 267; France, 289; Prussia, 317; the Netherlands, 327; Austria and Spain, 363; Italy, 394; Russia, 397; sixty-three healthy districts of England, 177; and in thirty large town districts of England, 355. The records of the peerage of England show that out of 100 children born alive in peers' families 90 survive, ten only dying in the first five years of age; and the deaths among the children of the English clergy are nearly in the same proportion. But in the foundling hospitals these proportions have been reversed; for 90 out of 100 born alive have been cut off in them during the first five years of life. By the English Life Table, of 100 children born alive fifteen die in the first year, five in the second, three in the third, two in the fourth, and one in the fifth—making twenty-six in the first five years. Of the fifteen who die in the first year five die in the first month of life, two in the second, and one in the third month. The French returns show the deaths in the first week of age, and the annual rate of mortality in that first week is 154 per cent., which may be thus illustrated: If 100 children just born were placed in a house, and their numbers maintained by the addition of a newly-born child to supply the place of every death, so that there should always be an average of 100 children maintained within the walls, 154 deaths would take place therein in twelve months on the hypothesis that the mortality rate be that of the first week of life.

Excision of the Superior Maxilla.—William R. Whitehead, M. D. (University of Paris), reports (*New York Medical Journal*, June, 1866), a case of excision of the superior maxilla, which offers several points of interest. One of these is the priority accorded to Dr. David L. Rogers of this city; but the chief and most interesting feature is the situation and peculiar nature of the tumor excised by Dr. Whitehead, and which from the microscopic examination seems to have been an osseous hypertrophy. It is so well exhibited by drawings that we take pleasure in publishing one of the excellent wood-cuts which has been placed at our service. In connexion with this operation he very properly alludes to Mott, Stevens, and other eminent American surgeons. The operation which furnished occasion for his paper was on a negro girl, twelve years of age, and was performed at the village of Anderson C. H., S. C., during the month of April, 1865.



The case also illustrates, in an operative point of view, the difficulty attending this operation without the aid of the bone forceps, with which it is so much more easily and rapidly accomplished; but he says that circumstances were such that he was poorly supplied with instruments, and could not provide himself with a pair. A single incision was made, such as practised by Liston, Syme, and others, and the tumor dissected from its contiguous tissues anteriorly. The facial artery, on account of hemorrhage, required a ligature to each of its cut ends; demonstrating one of the disadvantages of an incision in the middle of the cheek.

The os onguis was pierced with a trocar, and by means of a belloq canula and a threaded wire, a chain-saw was passed behind the nasal process and out at the anterior opening of the nasal fossa, and this process cut at the part indicated by the letters *A A* in the figure. An incision was made along the middle palatin suture, and another at right angles along the posterior border of the palate bone, and with the aid of the canula the chain-saw passed through the nasal fossa and the incision in the soft palate and out again at the mouth; the bony arch of the palate was then cut in a line corresponding with the middle palatine suture, and is designated by the dotted lines *B B*. A small straight saw was used to sever the malar bone and the upper

part of the superior maxilla, preserving the floor of the orbit. The tumor was wrenched out with strong forceps. There was no hemorrhage afterwards—five twisted sutures were used, and in seven or eight days removed—in a month the girl was entirely well. Six months afterwards there was no recurrence. He proposes in a subsequent article to treat of certain tumors of the superior maxilla.

Extrophy of the Bladder.—Dr. C. H. McGill, of Galveston, Texas, reports in the *Galveston Medical Journal* the following case of extrophy: The patient is a Texan, æt. 27; the bladder is situated in the median line, just above the symphysis pubis, where it forms an irregularly round convex tumor about four inches in length and three and a half inches in breadth. The tumor is soft and elastic, of a bright red appearance, is exceedingly sensitive, and bleeds readily on the least irritation. The size of the tumor is greatly influenced by the position of the patient, being much greater in the erect than in the horizontal position. It has a fungoid surface, and is traversed with fissures varying from one-eighth to one-fourth of an inch in depth. The urine seemed to exude from the entire surface of the tumor; more, however, from these numerous fissures. The mouths of the ureters could not be found. The penis was only one and a half inches in length, was without a glans, was imperforate, and was flattened by compression between the tumor above and the scrotum below. Although the testicles were of the ordinary size and healthy, the patient had never experienced sexual desire.

The Mortality Rate in Certain Towns of England.—While the annual rate of mortality for the whole of England is only 22 in a thousand, in Manchester it is, taking a ten years' average, 31, and in 1865 was 35.6. Mr. Leigh, a registrar of health, in a second paper to the registrar general of England, enters fully into the subject of the impurities of the atmosphere and its effects in that city. He divides the atmospheric impurities of towns, into solid, vesicular, and gaseous; shows that the first, which occupy the lower stratum, act as irritants to the respiratory organs; that the vesicular impurities, which form the medium, are direct excitants of many types of disease; while the purely gaseous enervate the system, and render it an easier prey. "Of the solid impurities," says Mr. Leigh, "the principal is coal smoke, which forms a continual dark and dense canopy over Manchester, and causes a murkiness in the streets from which they are never free." Mr. Leigh shows that the mean annual mortality for lung diseases is greater in Lancashire and Cheshire than in any other divisions of England, with the exception of London.

Presence of Sulphur in the Atmosphere.—Sulphur having been proved to be everywhere present in the air, it is now found to be accompanied by sulphate of soda, which is obtained under circumstances that would seem to settle the question.

The Temperature as affected by Altitude.—The temperature at 22,000 feet above the sea is about 72½° lower than at the surface, which gives, supposing the decrease to be uniform, a diminution of about 1° for every 315 feet.

Insalubrious Atmosphere in a Court Room.—A recent examination of the atmosphere in a certain court-room showed that 5,000 parts of oxygen were absent in each 1,000,000 of air, the only parallel to which, so far found, exists in the under galleries of coal mines.

Disinfection by Steam.—At a recent trial at Seguin's Point, Staten Island, steam superheated by an ingenious but somewhat rude apparatus, improvised by Dr. A. N. Bell, of Brooklyn, and Mr. L. W. Leeds, an engineer of Philadelphia, gave the following results: Eggs, oysters, and fish were cooked in five minutes; and in ten, eggs wrapped in eight folds of a soldier's blanket were made as hard as heat can make them. The highest temperature marked by the self-registering thermometer was two hundred and sixty degrees; the highest by the thermometer on the outside of the building was two hundred and twenty-five degrees. Preparations are going on for a trial of steam at an early day in infected houses in the city.

Production of Oxalic Acid.—Three French chemists—MM. Laurent, Castheler, and Basset—have succeeded in obtaining oxalic acid from the waste of shoemakers' and saddlers' shops and others, where leather is used; also from woollen rags, horn, hair, etc. For this purpose these residues are treated with one part of sulphuric acid and four of water, and the mass thus obtained is subjected to the action of one part of nitric acid and three of water, at a temperature of about eighty degrees centigrade. From the digestion of this, oxalic acid is easily extracted.

Treatment of Trichiniasis.—Dr. H. Keifer (*Detroit Review of Medicine and Pharmacy*) says: "I think the chief indications are, to support the patient by a nourishing diet, in order that, if possible, he may retain vitality enough to pass through the period while the entozoa are active, as, after they are incapsuled, they do comparatively little harm. All other treatment should be symptomatic and expectant."

Intra-Uterine Retention of Urine.—Depaul related to the Society of Biology a case of intra-uterine retention of urine, resulting from obliteration of the prostatic portion of the urethra. A male child, born in the eighth month, died soon after birth. The kidneys and ureters were enlarged, and together with the bladder contained 500 grm. of urine.—*Prag. Vertel Jahr. Schrift.*

Creasote in Diphtheria.—Dr. J. J. Knott, of Griffin, Ga. (*Atlanta Medical and Surgical Journal*), reports favorably upon the local application of creasote in diphtheria. The formula for the preparation he gives as follows: ℞. Creasoti ʒ ij.; Aq. Font. ℥ ij.; Pulv. Acaciæ q. s.

Bromide of Potassium in the Treatment of Acute Gonorrhœa.—Dr. W. H. White (*Med. and Surg. Monthly*, Memphis, Tenn.) recommends the use of this salt in the treatment of acute gonorrhœa. He affirms that it possesses the peculiar property of preventing chordee consequent upon nocturnal erections. When a case is presented in its first development he recommends its use in doses of five to eight grains three to six times during the succeeding 24 hours, in combination with saline cathartics, low diet, rest, and cold applications to the part. When the heat and acute pain and excitability are reduced, the remedy should be continued with some of the stimulating diuretics, together with the occasional use of mild astringent injections.

Bromide of Potassium for Irritable Urethra.—Hutchinson has used bromide of potash for irritable urethra in over thirty cases, with the most favorable results. This was particularly the case in inflammatory strictures of the urethra, in which the sensitiveness was rapidly diminished, and subsequent introduction of the catheter was followed by extensive dilatation. He calls attention to the similar anæsthetic action of the remedy on the fauces.—*Prag. Vertel Jahr. Schrift.*

THE MEDICAL RECORD.

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SYSTEMATIC REGULATION OF MEDICAL STUDIES.

IN the last number we alluded to the advantages which would grow out of an extension of the lecture term, and took occasion to point out the evils which were inseparably connected with the present system of crowding both students and teachers. Pursuing the general discussion of these evils, we propose briefly to allude to the necessity of inaugurating other measures which are equally deserving of the attention of those who have the power and disposition to institute reforms.

Next in importance to the extension of the lecture term, and naturally growing out of it, is the systematic division of the medical class into grades that will respectively meet the requirements of the first, second, and third-course student. At present lectures upon any given subject are given promiscuously to one class, and the student of the first year sits beside the one who is receiving his third course; and each has to choose for himself what he thinks he can appropriate. The beginner bewilders himself with terms that he is not prepared to appreciate the meaning of, while the second and third-course students vainly strive to confine their attention to the most elementary subjects. Viewing the lectures as a whole, they are of great benefit to the class; for what will not suit one is sure to be just what the other may want. But this lack of system in the regulations of the student is most ruinous not only to his habits of thought, but to the disposition he may have to confine his attention strictly to those subjects which are fitted to his capacity. He is virtually left to himself to choose his own course; and without being under any special restraint from the faculty, can just as well take up the study of midwifery before he has a knowledge of the bones of the pelvis, as waste his misdirected energies upon surgical operations before he has grounded himin his anatomy. Such students, and these are very much in the majority, have a strange perversity for commencing at the tail end of their studies and working up. They can hardly be blamed for this either, as the subjects which they are led to prefer offer many more attractions for them than those which properly form the groundwork of their studies. The elementary branches are uninteresting to them, because they cannot see their practical application; and they place them aside "for a more convenient season," when, they persuade themselves, they shall be better able to relish them, really looking upon their studies as amusement rather than actual work.

This desultory mode of study is directly attributable to the want of a proper division of the work by the professors. It is true that the recommendations which each professor gives to the members of his class, as to the course that they should pursue, are sometimes heeded; but from the want of strict regulations to enforce such precepts, thorough instruction is shorn of one of its chief advantages.

There should be more than a mere recommendation to study such and such a branch, such and such years; the college should insist upon its enforcement.

The only way they can do this is to divide up the class into three separate ones; each class having its own branches for study, and no other. The elementary class should be composed of first-course students, the next highest of second-course, and the senior class of the third-course student. In order that each class should be fitted for a higher grade, they should be examined at the end of each term, and if not qualified, should be thrown back, to go over the course again.

This would entail some extra work upon the professors, but they should be willing to shoulder the burden on behalf of the student and for the interest of the college. The former would, by the proper regulation of his studies, take immense strides towards attaining the proper knowledge of his profession; while the latter would not be compelled to hazard its reputation by granting a license to practise merely on the results of the final examination.

In the matter of examinations we have another word to say. There is not enough communication between teacher and student; not enough of that interchange of thought which should belong to profitable instructions. Very many professors think if they have filled up their hour with a lecture, they have performed their duty to their hearers, and the latter have accustomed themselves to expect nothing more. If a student fails fully to understand his teacher, it is considered his misfortune; and there are at present no opportunities for him to have difficult points explained except he crowds around the lecturer at the end of the hour and is content with a hasty answer.

The difficulties which some students labor under in having proper facilities for the satisfactory elucidation of difficult questions are in the main very great, and the discouragements which grow out of them are of no inconsiderable moment. If each professor were to devote

one hour in each week for the examination of the lectures he has during that time given to his class, all these difficulties would be overcome. The student could then be questioned, and if he failed to comprehend any important point, he could have it explained him. These examinations should not be confined to a few members of the class, but all should be required to place their names upon the list. Not only would this plan assure the teacher that his instruction was beneficial, and give him a knowledge of the relative standing of individual members, but it would insure for him a strict attention to his lectures, and the taking of careful notes, a habit which, by the way, we cannot too strongly recommend to the student.

While endorsing the practicability of these changes, we are aware that they cannot be made at once; but this much at least can be done on the part of those colleges that may favor the project—viz. an announcement to the effect that after a certain period a plan founded upon such changes will be adopted. We would not presume to enter into a detailed account of what the arrangements of subjects for different courses should be, as we think such matters belong strictly to the colleges themselves. It is, however, desirable that such a plan should be as universal and as uniform as the particular circumstances of each college will admit, so that students changing from one to the other may not have their courses of instruction interrupted or confused.

The convention of medical teachers will doubtless deliberate upon the feasibility of making such changes as have been suggested, and the profession will await with no common interest their decision.

We have noticed of late a disposition in certain medical gentlemen to court notoriety in a way that strikes us as not only very unprofessional but in very bad taste. We now not unfrequently see a notice of a "very difficult and dangerous operation," performed by the very skilful Surgeon A; of a very learned and scientific lecture on some rare (?) form of disease, by Dr. B; of some astonishing recovery brought about by the assiduous attentions of the eminent Dr. C; and we cannot make ourselves believe that such reports can find their way to the public without the knowledge of the principals. The extent to which this system is now being carried on is shameful, and deserves the serious attention of some Committee on Medical Ethics. It may, perhaps, be that the public are particularly anxious to know of the exploits of Dr. A., the views of Dr. B., and the success of Dr. C.; but it does seem strange that some of the doings of *our really substantial* men are not alike so faithfully and regularly reported.

The anxiety of the public to know something of cholera has tempted many an otherwise prudent man into the indiscretion of addressing a letter on the subject to some of our leading papers. There would be some shadow of an excuse for this if these gentlemen could be considered authorities in the matter; but, unfortunately for us, their ideas are crude in the extreme, and while they may tend to glorify the writer, inevitably stultify the profession. If the public desire to have any authoritative opinions concerning this disease, they can appeal to the Health Board and be satisfied; it is the duty of this body to minister to the wants of the community in this respect; and, so far as we can see, they do their duty.

Medical men occupying public offices have a right to address the public, to whom they are expected to give an account of themselves; there may be instances too, where late incumbents may, from necessity, rush into print to defend views before mooted in public; but it strikes us as discreet, at least, for other members of the profession to wait until their opinion is sought for, and not to cheapen their otherwise valuable services by volunteering too much.

Reviews.

THE STUDENT'S BOOK OF CUTANEOUS MEDICINE AND DISEASES OF THE SKIN. By ERASMUS WILSON, F.R.S. New York: William Wood & Co. 1865. Pp. 445.

THIS new book on skin diseases, by Mr. Wilson, contains several changes in his views from those expressed in his former writings, prominent among which is his so-called "clinical arrangement," which is an attempt to classify affections of the skin "on the most salient and striking characters of each disease, whether those characters be in their nature pathological, etiological, or physiological." Twenty-two groups are thus made. The anatomy, physiology, and pathology of the skin are given in a very interesting manner in the first sixty-five pages. This will be found a very valuable portion of the book, not only to the student but also to the medical man who wishes to recall forgotten facts and illustrations.

The various diseases of the skin, beginning with the eczematous affections, in which, in accordance with his clinical classification, he places *eczema*, *psoriasis*, *pityriasis*, *lichen*, *impetigo*, *scabies*, and *gutta rosacea*, are then discussed in a very readable manner to the end of the book. We confess to a great liking for Mr. Wilson's views in general, especially his careful observations of the state of the general health in affections of the skin. His views have been so far modified by the teachings of *Hebra* and his school, that he now gives local treatment its proper place, while he has not adopted what it seems to us is an erroneous view among German special teachers; that is, the one which ignores the constitutional state, which in many classes of cases seems to be the primary cause of the local manifestation.

An Appendix is added, in which Hebra's classification of cutaneous diseases is given.

Without pretending to render any judgment as to the respective merits of the various systems of classification over which the writers on cutaneous medicine make such an ado, we may commend Mr. Wilson's book as an able and interesting one, and as containing a system of treatment which has proved successful. The publishers have presented the work in a very creditable manner.

THE WOMEN'S HOSPITAL ASSOCIATION OF THE DISTRICT OF COLUMBIA has been recently incorporated by Act of Congress.

Reports of Hospitals.

BELLEVUE HOSPITAL.

PROF. F. H. HAMILTON'S CLINICS.

I. Cheloid. II. Frost-Bite. III. Compound Fracture of Femur: Union without Shortening. IV. Simple Fracture of Femur. V. Periostitis: Incision. VI. Fracture of Leg, and Apoplexy.

Reported by John Winslow, M.D.

Wednesday, January 10, 1866.

I. *Cheloid.*—Richard N——, æt. 21, has no evidence of strumous or syphilitic taint, hereditary or acquired. He is temperate, and has always enjoyed perfect health, with the exception of this affection. About one year ago, he first observed small, white, tuberculous elevations upon the skin of the præ-sternal region. These disappeared after two months, and a month later reappeared, steadily increasing until about four months ago, from which time there has been little or no change. The eruption presented itself also, but much less abundantly, upon the back. You will now observe, all around the margin of this mass of cheloid tissue, very many of these little white tubercles, about the size of a split pea. This is the first stage of the eruption. Towards the centre they have become conical, and run together, and in this manner have been formed long, elevated ridges, firm, but slightly elastic, smooth, of a pale pink hue, closely resembling the wheals arising from the strokes of a rod. The change in color occurs after the tubercles have become confluent. The cheloid masses move freely upon the tissues beneath. The patient complains, especially when perspiring, of sharp itching, smarting, and burning in the part, which phenomena are characteristic of this affection. He mentions also a pain in his side, which, I presume, is merely sympathetic, as there is no cough or other evidence of thoracic disorder.

The intimate structure of this growth is found to be essentially the same as that of a fibro-plastic tumor. But the cheloid limits itself to the tegumentary tissue, and it is multiple, or formed of many separate points of deposit, which eventually coalesce; while the "fibro-plastic tumors," so called, may appear elsewhere, and are commonly single. Under the microscope, fibrous-tissue filaments are seen crossing each other in all directions, and inclosing a small amount of plastic matter. This growth is very slightly vascular, the pink color, now observed on some of the masses, being wholly superficial. In its tendency to return, it may be classed with the fibroid recurrent tumors; but, unlike them, it is indisposed to ulcerate or to become malignant, and is not likely to produce more serious consequences than the attendant irritation and annoyance. It may occur idiopathically, and then is apt to begin upon the breast; but it is oftener traumatic. It is most frequent after burns, the cicatrix of which it resembles; but it may follow a mere scratch. It is said to be more common in the negro than in the white man.

Once established, cheloid is persistent, even the transient disappearance noted in the present instance being quite unusual. It may, however, continue through life with little or no increase either in extent or in severity. Our treatment must, therefore, be palliative, and not remedial. No authentic case has come to my knowledge of the successful extirpation of the disease by excision, even where the mass of morbid tissue has been small. It is certain to return in the cicatrix. Again, we have no specific, constitutional remedy. Many drugs, particularly the arsenicals, have been tried, with no benefit beyond occasional palliation. We may expect to moderate the irritation by attention to the general health, keeping the bowels free by saline aperients, and avoiding violent exercise or undue excitement. Low diet is not indicated, unless by some temporary inflammatory action. In the case before us, collodion has been applied by Dr. Farrell, the House Surgeon, with the double purpose of protecting the parts from the chafing of the clothes, and of possibly reducing the size of the elevations. The patient is taking *Liq. Potas. Arsenit.* gtt. vj., *bis in die*, to test its effect; but we expect no advantage from it.

II. *Frost-Bite.*—These severely cold days have furnished many cases of frost-bite. In the man before us, a driver of a Broadway stage, the fingers of the right hand have been badly frosted. The very dark purple color at their ends indicates death of the skin, but probably not of the deeper tissues; above this you notice a number of vesicles; the parts are numb, and cold to the touch. The patient states that at the time of exposure he had no pain, but only loss of sensation. He has reason to think he made a complete trip after his fingers were frozen, before suspecting the fact, his hands feeling, as he declares, "rather warm."

We see here the local effects of cold. Its constitutional action is familiar, and was especially well observed in Napoleon's Russian campaign. It is that of a direct sedative, producing symptoms similar to those from a narcotic dose of opium. There is an overpowering lassitude and desire to sleep, which, if indulged, ends in loss of consciousness and a speedy and painless death. So also the destruction of a part may be the result of the direct sedative effect of the cold; but it is more commonly due to the violence of the subsequent reaction. The proper treatment is, then, to make this reaction as gradual as possible. We apply cold water, not on the homœopathic principle of *similia similibus curantur*, but because cold water is really warmer than the congealed tissues. Snow is not always safe, as it may be too cold; and rubbing with snow, or with anything else, is objectionable, both from its tendency to excite inflammation, and from the danger of breaking parts made brittle by frost. This accident is said to have happened sometimes, especially in the case of the ear. If the patient exposes the frozen limbs to the fire, the reaction will be so violent that not only will sphacelus be insured, but fatal congestion of the lungs may ensue.

The fever consequent upon exposure to cold is generally of a typhoid form; and the inflammation of frost-bitten parts in most cases assumes an erysipelatous character. Stimulation is, under these circumstances, proper and necessary. This is another illustration of the principle that we must not treat affections by their names, in accordance with preconceived theories, but we must be guided alone by experience. Where deep sloughing is clearly inevitable, a yeast poultice is one of the best applications. In milder cases I am fond of the *Ceratum Resinæ* (Unguentum Basilicon), which is gently stimulant, and therefore well suited to inflammations of this nature.

III. *Compound Fracture of Femur: Union without Shortening.*—John B——, æt. 4, whom we call our "Young Napoleon," suffered compound fracture of middle third of left femur, 25th Aug., 1865, from being run over by a wagon. He was received into hospital directly after the injury. Under the extension of four or five pounds, with no side splints (I do not recommend this omission), union has been effected without shortening. But here, upon the inside of the thigh, is a sinus evidently leading to necrosed bone, and I feel

a sequestrum apparently ready for removal. We will etherize the little fellow and explore more thoroughly.

Children take ether or chloroform very kindly, and the sleep so induced is quite natural. I have never known a fatal result from their administration to children of less than eight or ten years. I once attempted to give a child chloroform while asleep, but did not succeed. I would like to see the matter further tested, as I am quite sceptical in regard to the stories of robbery thus committed, though I do not absolutely deny their possibility.

The sequestrum proves to be large, and is still firmly attached to the upper end of the lower fragment. In such a case it becomes our duty to leave it, as its violent removal would probably be not only fruitless but injurious. The limit of necrosis being yet undefined, we might cut below or above it. If above, we should do no good; if below, we should sacrifice sound bone, and predispose the part so irritated to inflammation and further necrosis. So long as the patient is doing well, leave the case to nature, and wait until the dead bone has separated from the living. Then the exfoliated portion may, in most cases, be easily removed; yet it is occasionally required to cut through living bone to reach it.

Understand, however, that we should be chary of even the slightest interference while the patient is debilitated and surrounded by hospital miasmata. I remember removing, by an incision three-fourths of an inch long, and with the loss of not above two drachms of blood, a loose sequestrum from the thigh of a Confederate soldier. The next morning erysipelas appeared in the wound, and the man died. With this experience fresh in my mind, I counselled against removing a similar sequestrum from the tibia; but it was done, in opposition to my advice, and fatal gangrene followed. The same considerations apply still more strongly to amputations and resections. At Williamsburg, every one of fourteen resections of the shaft of the femur, made under similar circumstances, ended fatally. I have not always thought these lessons necessary. But the fearfully lengthening death-roll of the hospitals in the early years of the war, convinced me that it was quite impossible for surgeons, without experience in large hospitals, to realize the baneful influences which here surround our patients. Happily the last four years have not been barren of instruction to our profession. Let us remember the lessons.

IV. *Simple Fracture of Femur.*—John O'B——, æt. 9, Irish, admitted Jan'y 2, 1866, with simple fracture of right femur, middle third. The case was treated, like the last, with Buck's apparatus. At first six pounds extension was applied, afterwards ten, with counter-extension by the weight of the body upon the bed, and no side-splints. As the result of this treatment, we had the limb straight, but shortened three-fourths of an inch. The extension was then increased to thirteen pounds, with counter-extension by perinæal band, and side-splints were applied; from which we have already a gain of about three-eighths of an inch. The side-splints I deem important, though they may in some cases (as III.) be dispensed with. The perinæal band is advisable for children, whose muscles are strong in proportion to their weight, and who will not lie quietly upon the bed.

Any shortening not exceeding an inch would produce no apparent deformity in a child of this age. The pelvis and the lumbar vertebræ would in a few years so accommodate themselves to the new conditions as completely to conceal the defect, both in gait and attitude. Indeed, it is hardly observable now. The feet are exactly opposite each other, and so are the knees; but the right ilium is higher than the left. The mode of measurement is of consequence. Velpeau measures from the fold of the groin; but the two folds may show a difference in position of two or three lines. Measurement from the centre of the sternum is subject to various sources of error. I formerly took as my point of departure the anterior superior spinous process of the ilium, marking the skin with ink or iodine; but found it very difficult to make the results of two trials agree precisely. The small tubercle just below this process, at the origin of the tensor vaginæ femoris, furnishes a definite point; and I measure thence, to my finger-nail placed immediately below one of the malleoli. This is the only plan I consider trustworthy, and by it the variation in several trials may be less than a line.

Looking over ninety cases of gunshot fracture of the femur, I find some straight, some crooked, all shortened —the average shortening being about two inches. The best results have been obtained from the straight position.

V. *Periostitis: Incision.*—Margaret D——, æt. 28, domestic, was transferred from the medical ward, having suffered intense pain in the left thigh for several weeks. Periosteal inflammation was diagnosticated; and, on the 9th of December, to relieve the tension of the inflamed parts, a deep incision, six inches long, was made upon the external aspect of the thigh. The femur was found rough, its periosteum being partially separated. The agonizing pain was at once relieved; but the effects of its long continuance, as well as those of the periosteal affection, upon the system were not so easily overcome. The patient was extremely weak, and so continues, showing also a tendency to nausea that has led me to fear pyæmia. She has had a number of slight rigors, but none well marked; and she is gradually improving.

Callus (an involucrum) has begun to be secreted about the diseased bone. I anticipate more or less exfoliation from the parts whence the periosteum is detached. Where this is torn off from sound bone, as is sometimes done in trephining, exfoliation may not occur; but I think it always follows when the bone is diseased.

VI. *The Apoplectic* patient (case IV. of 8th inst.), with fracture of the leg, is dead. This was a case where the inflammation of the ankle-joint, near the point of fracture, was so great as to preclude the use of even the slightest extension; and at no time did the council of surgeons consider him in fit condition for amputation.

The Criminality and Frequency of Abortion.—At the twenty-sixth annual meeting of the Hampden County Massachusetts District Medical Society recently held, the following resolutions relative to the alarming increase of the crime of abortion were unanimously adopted:—

Whereas criminal abortion has become an alarming evil by its frequency in society; and

Whereas many suppose it to be a crime of little magnitude,

Resolved, That we deem it our duty to society, to publicly express our opinion of its nature and criminality, and also the detestation in which we hold all who may in any way abet the crime.

Resolved, That we regard the unwarrantable taking of life of the unborn fœtus at any time after conception, in a moral sense, as much the crime of murder as to destroy the infant at full term.

Dr. Edward L. Beadle, late of this city, has been appointed President of the Board of Health of the city of Poughkeepsie, where he now resides. We congratulate the citizens of Poughkeepsie on this most judicious appointment.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, JUNE 20, 1866.

DR. JAMES ANDERSON, President, in the Chair.

LAMINARIA DIGITATA.

DR. WORSTER presented specimens of the *Laminaria digitata*, or Sea-tangle, from the Bay of Fundy, where it may be found in abundance at a very low tide point in the protected coves He claimed a superiority over the English article, which, owing to its brittleness, is fast going out of the market, while these specimens possessed not the bad fetor of the compressed sponge, and were as tough as rope-yarn. The *Laminaria digitata* is for the most part derived from the Straits of Magellan, the British Channel, and in this instance the Bay of Fundy. For all practical purposes, no variety had given him the satisfaction of the last mentioned.

THE PREVENTION OF EPIDEMIC CHOLERA.

DR. HARRIS presented a series of resolutions* for the prevention of Epidemic Cholera.

DR. POST moved that the resolutions be considered *seriatim*, whereupon the preamble and first resolution were carried unanimously.

DR. HERZOG contended that the language of the second resolution was faulty, in that no expression was given to the fact that the choleraic excretions, to produce mischief, must be in contact with the soil, the linen, or some agent capable of producing fermentation.

DR. HARRIS explained that, although he agreed in the main with the last speaker, he had been careful, in the framing of the resolutions, not to endorse any theory, however ingenious; and that his object was to construct a platform upon which the whole profession might stand. With this end in view, he had refrained from introducing any reference to questions of temperature, moisture, etc., in so far as their operation upon organic materials was concerned. Pettenkofer's views were not yet adopted as a whole by the profession; the evidence was yet to be sifted, the facts to be reviewed and tested.

DR. HERZOG maintained that, as a scientific body, the Academy should express scientific facts; and that even theories, when strengthened by experiments, afforded a certain amount of knowledge worthy of expression, if not endorsement. He would therefore favor a remodelling of the language, if for no other reason than to inspire confidence. He contended that knowledge was limited in more instances than the question now being discussed; that a mere vesicle gave no clue to the character of the virus it inclosed; that conviction came only after the disease had manifested itself by its behavior, effects, etc. Choleralogists had agreed that there was no specific difference between spasmodic and Asiatic cholera; and what was true of the one was also of the other.

DR. SAYRE expressed the view that there was a difference between the American and Asiatic cholera; that the former was not capable of propagation, while the latter was. He would conjure Dr. Harris to put down his conditions and defend them with courage.

DR. HARRIS averred that caution in the use of words was as essential as courage; that too much might be said as well as too little, and cited Professor Parkes and Dr. Wm. Budd, of England, as authorities in the support of his position. He would, however, amend the text in dispute so as to read as follows:—"That the choleraic diarrhœa and 'rice-water' discharges of cholera patients are capable (*in connexion with well known localizing conditions*) of propagating the cholera poison," etc., etc.

The amendment was agreed to, and the resolution as a whole adopted.

The third resolution, relating to the danger of personal attendance upon the sick and the controllability of the causes of cholera, was then adopted without debate.

The fourth resolution enjoined thorough cleansing and disinfection of persons and clothing. Carried.

The fifth read as follows:

"*Resolved*, That for the purposes here mentioned, an external sanitary police is desirable in all great maritime and river towns, but that such sanitary regulations need not seriously embarrass commercial intercourse and the interests of trade."

DR. SAYRE said that it was necessary that definite views, as emanating from responsible bodies, should be extensively circulated. He could not but condemn the action of the Board of Consulting Physicians in Boston, Mass., to whom he had sent facts incontrovertible, with the result of finding them ignored, and such phrases as these adopted in the room of logical conclusions: the Board regrets the "change of views" on the part of Dr. Reid, "the cholera cannot be barred out," it "comes through the atmosphere," and was a "something upon the people." Such high authority should be met, otherwise vague deductions would take the place of positive knowledge.

DR. HERZOG pronounced quarantine to be the true safety-valve. Periods of variable length had been adopted by different authorities, extending from ten to twenty-two days; the International Quarantine Convention, for instance, had fixed upon fifteen days as the limit. There could be no doubt that a certain time for incubation was necessary, but the time embraced by it had not yet been very accurately determined. Dr. Pettenkofer, indeed, had opposed quarantine regulations, owing to the difficulty of rendering them effective.

DR. SAYRE said that Dr. Pettenkofer did not oppose the *principle* of quarantine; but, on the contrary, was a firm believer in it.

DR. HERZOG, in further elucidation of his views regarding the incubation of the disease, gave the history of the origin of the epidemic upon Ward's Island. He said that it had been brought from the "Atalanta," by a nurse who had been ten days aboard of the vessel, and had been admitted into the State Emigrant Hospital for a sore foot, where he remained five days. The cholera manifested itself six days after this patient's departure.

DR. HARRIS, without defining the nature of cholera, said that quarantine had saved Rome; but Rome was to-day worse off for the infliction, if the accounts of privations, etc., as given by those then sojourning there, be accepted. He did not hold that quarantines, as at present conducted, should be regarded as blessings; and yet the Board of Health were obliged to shoulder the whole responsibility.

DR. SAYRE thought Dr. Harris somewhat inconsistent. If quarantines were useless and could not be enforced, why not abolish them at once. Again, if quarantines were only pest-holes, from which leakages were to constantly occur, they should by all means be abandoned; if no good resulted, commerce should not, of course, suffer.

DR. HARRIS suspected that the cases which had recently occurred in the city were traceable to infected clothing from the cholera ships; a quantity small, to be

* These resolutions were published in the preceding number, p. 223.

sure, but sufficient for mischief, may readily have been introduced into the city after escaping the vigilance of officials. Such clothing would most likely be found in Pitt, Willett, and like streets of that section of the city. He would cite as a probable corroboration the case of the patient in Thirty-fifth stree', who was seized with the disease after a visit to that quarter.

The resolution was then, on motion, adopted.

The sixth resolution, expressive of confidence in the protecting influences of "sanitary measures, municipal, domestic, and personal;" and the seventh, inviting the profession in general, wherever dispersed, "to urge the immediate adoption of adequate measures of sanitary protection," were, on motion, severally adopted as the sense of the Academy.

Dr. Bell (of Brooklyn) made some remarks upon *steam disinfection*, in which he gave an account of the results of experiments at Seguin's Point.

Dr. Bulkley had recently seen an apparatus for superheating steam, where the steam was also dry.

Dr. Hamilton moved that Dr. Bell be requested to report on that subject to the Academy at the next meeting. Carried.

DEBATE ON THE RESOLUTION ENDORSING THE HEALTH BOARD.

Dr. Sayre remarked that his previous motion, calling for a reconsideration of such part of the minutes of a past meeting as related to the resolution endorsing the Health Board, was now in order. As illustrating the sense of the profession at large and the interest excited by this action of the Academy in a neighboring city, he quoted at length an article from the *Medical and Surgical Reporter*, Vol. XIV., page 474, under the caption of "The Metropolitan Board of Health and the Academy of Medicine; a point of Ethics." He fully endorsed its sentiments, and adverted to a former action of the Academy, by which, as a body, they voted to withdraw all official and professional intercourse with the respective heads of the Medical Bureaus, should the so-called system of Homœopathy be recognised in the appointments then to be made. In the present instance, according to the secular press—and the reports all agree, at least they have not been denied—"Homœopathic" appointments have been actually made. He hoped that the Academy would not jeopardize its standing with the American Medical Association, by allowing the minutes to stand as at present recorded.

Dr. Post stated that this resolution was intended to offer the coöperation of the Academy to the Health Board, only so far as sanitary measures were concerned. Still, if the language of the resolution were open to misconstruction, and to the charge of endorsing Homœopathy by implication, he would make the sense of the meeting clearer by offering a supplementary resolution disclaiming any such intention. The resolution, thus amended, was then offered.

Dr. Hamilton said that the medical members of the Health Board had been simply outvoted, and that all of the gentlemen in question were well known as being opposed to Homœopathy.

Dr. Sayre replied that it was essential that the record of the Academy, as far as this question was concerned, should be *preëminently* clear. These homœopaths, rejoicing in their seeming triumph, claim to have been endorsed by the Academy, and would with this seeming endorsement be more clamorous than ever for recognition in all Hospital appointments.

He questioned the honesty of the phrase as substantially used by Dr. Stone; looking to the conciliation of popular prejudice; it was the duty of every member of the profession, however humble, to be true to himself in his conflict with error. Dr. Parker has said before the Health Board that he at times practised homœopathy also, and besides all this, some claim that he has even allowed it to be practised in his own family.

Dr. Hubbard stated, in vindication of Dr. Parker, that the circumstance which originated one of the reports, arose in this way: Dr. P. had, it is true, allowed a homœopathic practitioner the charge of his child soon after his arrival in the city. He desired to put to the test the homœopathic boast that hooping-cough was curable by their treatment. One of these practitioners was exchanged for another, with the result of merely confirming Dr. Parker's incredulity regarding "the potencies." He stated this on the authority of Dr. Parker himself, with whom he had conversed in regard to the matter.

Dr. Hamilton was convinced that Dr. Parker's language before the Board, to the effect that "he practised homœopathy," had been misconstrued; that he believed his intention was to convey the idea that in certain cases he (Dr. P.) also practised homœopathy, in the sense of non-interference, when the case demanded it.

Dr. Bibbins inquired whether, or not, the Academy was inclined to homœopathy? If not, then let the contrary be *distinctly* stated. When one yields out of respect to the prejudices of others, can he act according to his own convictions of right; nay more, can he claim our confidence? Why may not Dr. Stone, with equal propriety, give Dr. Newton, who cures "by the laying on of hands," an opportunity of testing his system also? Dr. Newton can boast of throngs, where we can claim individuals only. Surely here this is enough manifestation of this self-same "popular prejudice;" why not then, by a parity of reasoning, place him in a position to exercise his remarkable power? Give every therapeutical plan an equal chance, for all have advocates, more or less numerous. We find Drs. Parker and Stone mingling in the debate at the second meeting of the Board: "Let us try it," say they; "if it be the proper practice, let us practise it ourselves." Are not these doubts almost admissions? Again, is the Board anything more than a political body; and has the Academy ever before made haste to endorse any similar corporation? When it changes its political complexion, what then? Other men of other medical creeds may be appointed; it may be politic to do so; there may be other combinations; a different administration of affairs may supplant the present, for such is the history of all political bodies. As citizens do not expect the Board of Excise to concede anything to the prejudices of a very powerful party opposed to it, why then, as medical men, should we yield to any heresy, however respectable or numerous its supporters? He was far from impugning the motives of Dr. Post when he offered the original resolution; that gentleman's views were well known. He simply contended that the record of the Academy should be clear and not open to misinterpretation.

Dr. Van Kleek took the view that Dr. Post's original resolution was not meant to cover every vote, debate and action of the Board, but had reference to general hygienic measures only. He thought that the matter was well enough understood, and that all of this hubbub was unnecessary.

The supplementary resolution was then passed, and copies of the same were, on motion of Dr. Sayre, directed to be sent to Drs. Parker and Stone, Commissioners of the Metropolitan Health Board.

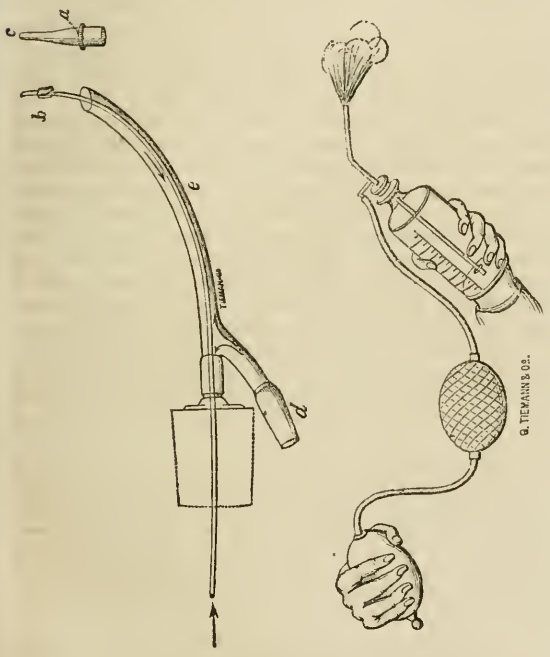
The Academy then adjourned.

New Instruments.

NEW INSTRUMENTS.

THE NEBULIZER OF DR. W. B. RICHARDSON, OF LONDON.

THE instrument of Dr. Richardson, of London, has now become so celebrated that every one has a desire to know all that is possible concerning it. We have heard enough of what it can accomplish, and what it may yet be able to do; but a great many are in ignorance of the principle upon which it works. It is not to be confounded with the ordinary Nebulizer, such for instance as those described in previous numbers of the RECORD, but it has a construction that is peculiar to itself, by virtue of which it has advantages over all others. It may be described as consisting in the first



place of a hollow curved tube, *e*, made of German silver, one extremity of which has an adjustable conical cap (*a*) while the other passes down into the bottle through a perforation in the cork. A short distance above the cork this tube has another, which is a short one (*d*), joined to it at right angles, and which is attached to the India-rubber tubing. Within the tube (*e*) there is contained a capillary one, which extends from within a line or two of the extremity of the cap, nearly to the bottom of the bottle, and beyond the bottled extremity of the larger tube. Near its upper extremity this capillary tube perforates a cylinder of metal (*b*) which almost completely occupies the calibre of the larger tube, and would entirely plug it up except that it has longitudinal grooves upon its surface.

The tubing and air balls are made of the finest rubber, are very elastic and very durable. The hand ball has, above and below it in the tubing, valves, the uses of which are sufficiently obvious. The netted ball in the centre of the tubing has very thin walls, and the mere pressure of the air from behind is sufficient to distend it. The netting is for the purpose of preventing an undue extension of the ball. Having now given a description of the parts of this beautiful instrument, we will proceed to illustrate its mode of action. We will start with the handball. This, by pressure, forces the air through the netted ball, and so to the cavity of the curved tube, *e*. One column of this air passes upwards through the tube, and the other downwards, as represented in the direction of the arrows in the figure. The upward column passes through the grooves in the circumference of the plug (*b*) into the cavity of the cap (*a*), and escapes through the capillary orifice (*c*) at its tip. This column of air passing over the extremity of the capillary tube, creates a vacuum in it, which vacuum is supplied by the fluid contents of the bottle. If the action should stop here we would have the merest drop at the extremity of the capillary tube. The next action is the division of the drops into spray. This is done by a continued current of the upper column of air passing in the manner already described. But this column of air being disproportionately large compared with the aperture of the tube, becomes compressed, and exerts a pressure upon the upper surface of the fluid in the bottle, which fluid is by it forced into the capillary tube. Thus we have a double force acting to produce a strong current of fluid through the capillary tube; first the production of a vacuum, and second, the pressure upon the surface of the fluid in the bottle.

It is this compression of the air, which, extending into the tube, serves to keep the netted ball more or less distended. The force with which this spray can be thrown is surprising. The jet, too, is comparatively steady, there being a pretty uniform pressure kept up by the regulating power of the netted bag, which by virtue of its elasticity compresses the air in it during the intervals of pressure upon the hand bulb.

The tube can be lengthened or shaped as desired, and the cap (*a*) may have two or three orifices.

Messrs. Tiemann & Co. have thought best to construct the tubes of pure silver. This, of course, makes the instrument more expensive; but the objection is counterbalanced by its greater utility and wider range of application.

Care is required in the manufacture of these instruments to get the required distance, between the end of the capillary tube and the orifice of the cap; for if the space be too great, the upper column of air regurgitates through the capillary tube, and instead of atomizing the drop, merely bubbles up through the water in the vessel.

For the purpose of producing local anæsthesia, we believe that there is no question but that this instrument supersedes all other nebulizers.

SANITARY CONDITION OF MEXICO CITY.—The following extract from a *New York Herald* correspondent's letter dated April 29th, gives a graphic but by no means flattering account of the sanitary, condition of Mexico city:

"All the filth from cesspools, sewers, and streets, and offal of every description, are deposited within the city walls, and within a few minutes' walk of the main plaza. The stench arising from this accumulation of putrid matter is carried over the city by every breeze, poisoning every breath inhaled; and in addition to this, the sewers through the principal streets are being opened, and the contents of thousands of vaults have been thrown out, their reeking fumes almost breeding pestilence in every quarter. These are matters which could be easily remedied, and would be elsewhere; but in Mexico the public health is never considered."

Correspondence.

LETTER FROM DR. STORER, OF BOSTON.

To the Editor of the Medical Record.

Sir—I find that an allusion made by me in a paper upon Excision of the Umbilicus, lately published in your journal, has given rise to much comment. I refer to my criticism of the vivisection at Boston, several years ago, of a condemned criminal, and of Dr. Calvin Ellis's association therewith.

Immediately upon the appearance of the paper, I became aware that I had touched a loud and long resounding string. Believing that the case in its scientific aspects was a very important one, I was not surprised at the interest immediately evinced in it by those who had never heard of, or had forgotten it. I was astonished, however, in view of my published disclaimer of any personal feeling, that my remarks upon the case should have been considered by any one as a personal attack upon Dr. Ellis, for whom, both as a physician and a gentleman, I have ever had the most profound respect, and whose friendship I have always valued. Finding that my motives were misunderstood by some, or perversely misstated, I endeavored, as soon as might be, to correct the matter, and in case I had really committed an error, to make, as I am always ready to do under such circumstances, the *amende honorable*. It was asserted, both privately and publicly, that I had violated all rules of medical criticism, had misrepresented the facts in the case, and had evinced gross ignorance of the simplest physiological principles. I hardly saw matters in this light, but nevertheless set myself earnestly and soberly to repair any wrong that I might have committed.

It will be recollected that I had expressed my belief that a supposed hanged person was alive at the time his autopsy was commenced. I had requested yourself to publish any scientific reply to my paper that might be sent you. I now offered to state in your pages that there existed doubts in some minds as to the relevance of my citation, the propriety of my exhuming a fact, even though very important in its scientific aspects and legal relations, that on some accounts had better have remained buried in the past, and even the correctness of my physiology, and I offered, moreover, to refer this latter point to the decision of any competent and impartial authority, say to Dr. Brown-Séquard. These offers, however, were declined, and I was told that nothing could suffice save the recantation of my abstract scientific opinion, which, of course, being unconvinced of error, I could not give.

Meanwhile, and during my absence at Baltimore as delegate to the American Medical Association, the affair was brought before one of our medical societies, the Suffolk district, isolated extracts were read from my paper in the Record, and a committee appointed to investigate them. At the first meeting of the Society after my return, I stigmatized this unusual procedure as, under the circumstances, alike uncourteous and improper, for it had received charges, by implication if not direct, against a member, and had undertaken to pass upon them during his absence; the matter in question, my paper in the Record, being one with which, as a society, it had no concern. I therefore simply denied its authority, ignored its committee, refused, as circumstances then were, to give any explanation whatever, and demanded that such action should be taken as justice to myself required. A special meeting of the society was accordingly held, at which the committee appointed for investigation reported that no charges had been made, and that they should render no report. The attempt at pressure thus being withdrawn, I read the entire paper from the Record, and volunteered the explanation that I could not have been forced into making; asserting, however, that my opinion of the vivisection was still unchanged.

Inasmuch as, during the discussion that ensued, the charge of ignorance of physiology in reference to this special topic was distinctly and deliberately repeated by the gentlemen who had previously preferred it against me, the editors of the Boston *Medical and Surgical Journal*, I am compelled to prolong this controversy. For myself, I can only say that I am forced into it against my will, having no leisure just now for such matters, and being anxious to do what I can to restore and to preserve professional harmony. I shall beg you to assist me in keeping the discussion, based as it clearly is, so far as I am concerned, upon difference of opinion as to a scientific point, free from all personalities whatever.

I have one word more to say. I regret that I have wounded the feelings of Dr Ellis, or have seemed in any way to bring discredit upon him. I was conscious of no unkindness of motive, and aimed at no personal attack; for these, I trust, are the prerogatives of smaller men. I considered my allusion a proper one; for the official papers that I cited were published, and are therefore the property of the profession, alike for reference and for criticism. I considered it a relevant one, for the gentleman had stated that he considered exploratory sections unwarrantable; he had ventured to sit in judgment upon my own, and it seemed fair to test his decision by his own previous practice. I thought, moreover, that my language, though strong, was yet not inappropriate. I had been told that my operation was unjustifiable. Successful, though it had been as an operation, the woman had died; if it were unjustifiable, I had therefore "incised my patient to death."

Viewing the matter, however, in the light that some have done, I see that the cases, though analogous, were yet not identical; Dr. Ellis having undoubtedly supposed his subject dead, while I knew that mine was alive, and meant to keep her so if I could, performing the section at her own request. I therefore regret sincerely that I applied the remarks that I did to Dr. Ellis.

I trust that I have now made all the reparation that can be demanded of another by any honorable man.

I may state, moreover, that had I possessed at the time of writing my article evidence now in my possession, I should never have held Dr. Ellis to any responsibility in the case, and that I now consider him as fully relieved from such. The burden of the whole matter rests with Dr. Henry G. Clark, at that time city physician of Boston, by whose order the vivisection was made, and whose business it was, if any one's, to ascertain and to decide if the man was really dead. Dr. Clark having avowed himself solely responsible, in a pamphlet of whose existence I was ignorant until since my article was written, and having now again declared that the affair is wholly his own, I regret anew that I should have wronged Dr. Ellis by putting him in the position which justly belongs to Dr. Clark.

The *London Lancet*, whose editorial I had forgotten till just now reminded of it, years ago saw this case in its true light.

Its avowal of it was at that time denounced as malignant, and an evidence of extreme ignorance of physiology. It may yet prove that such charges as the

last recoil upon their makers, however high their position, or the reverence their dicta have hitherto received.

In another communication, and as a contribution to medical jurisprudence, I may take occasion to discuss the questions: 1st, as to whether it is proper, advisable, or necessary, to ascertain whether criminals are alive or not at the time of their dissection; 2d, as to what constitutes in such cases probable, and what decisive, evidence of the persistence of life; and 3d, as to whether medical men, if careless or ignorant of physiology, may become *criminally* responsible to the laws of the land. The profession shall then decide as to which of the parties in this controversy—for it will be found to include more than originally entered it—are sound in their physiology, and which have contributed to, or desired to interfere with, the advancement of their science.

Yours sincerely,

HORATIO R. STORER, M.D.

HOTEL PELHAM, BOSTON, June 8, 1866.

PROF. SIMON, AND THE RESULTS OF OPERATIONS FOR VESICO-VAGINAL FISTULÆ.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—Under the heading of "Progress of Medical Science," in the issue of June 15th of your Journal, an extract from the *Hanover Zeitschrift für pratische Heilkunde* is given, which, from claiming so much for the practice of Prof. Simon in the hospital at Rostock, should not, in justice to American surgery, be passed unnoticed.

"Simon has, up to this time, operated on about seventy vesico-vaginal fistulæ, a number which before and contemporaneous with him, no operator has reached, and has attained results which by far exceed those of the Frenchman Jobert, and the American Sims. Of forty-three fistulæ occurring in forty women operated upon by Simon, up to 1862, and published, thirty-five were perfectly cured, five almost perfectly, only one remained unrelieved, and two died. The result of the last two and a half years, which comprehends more than thirty operations for fistula, and which will soon be published, shows a much more favorable experience; so that of all those operated upon, which now amount to more than seventy, only two remain unrelieved, while two have died.

"It is not too much to say that Simon restores continence of urine in every defect of the vesico-vaginal wall, including the defects of the uterus and of the recto-vaginal wall, when only a piece of healthy urethra remains, which is from two and a half to three centimètres long."

To the ingenuity of Dr. J. Marion Sims, we owe nearly everything in the success of this operation; and as a result of his teaching there are comparatively few surgeons in the country who have not operated successfully. Dr. Sims, previous to his departure for Europe, in private practice and service as Surgeon to the Woman's Hospital, had operated successfully in nearly two hundred cases, and during the past five years I have had about the same number. The result of my hospital service and private practice during the past year alone has been fifty-seven cases of vesico and recto-vaginal fistulæ *cured*.

Having been connected with the Woman's Hospital since its foundation, eleven years ago, and familiar with Dr. Sims's private practice previous to his leaving the country, I can state (and the same for my own service) that not a single death has ever occurred from an operation for fistula, or from any preparatory operation.

It must be claimed for this country, that with the aid of plastic surgery, scarcely a case is incurable, and a favorable result is only a question of time and perseverance.

Many members of the profession, during the past three years, have witnessed at the Woman's Hospital the various steps of successfully restoring the urethra by means of plastic surgery, in cases where it had been entirely lost. A short time ago a case was discharged from the hospital cured, after having been an inmate some three years, and having had twenty progressive operations for her relief. She was admitted with an entire loss by sloughing of the vesico-vaginal septum, the urethra, and all the tissue under the arch of the pubes, the cervix uteri, and cul-de-sac.

The vagina was not more than an inch and a half deep, and so contracted at its outlet by cicatricial tissue as to barely admit the index finger. When discharged, a urethra had been formed by flaps from the neighboring tissue, the uterus retroverted, drawn down and united to it, so as to form the base of the bladder, and by dividing the cicatricial tissue and opening up the lost cul-de-sac, a vagina some five inches deep was permanently gained. Although the bladder could not be emptied except by means of a catheter, the urine could be retained without inconvenience for twelve hours at a time.

The progress of this case is familiar to a very large number of the profession, and it must be regarded as a remarkable triumph of surgery, as it would be almost impossible for a greater destruction of the parts to occur.

A greater success in this operation must be claimed for this country than elsewhere, from the fact that the number furnished from the western and thinly settled portions of the country is so great from a want of proper medical aid, that the average destruction of the soft parts is greater than could ever occur in the thickly settled countries of Europe.

THOS. ADDIS EMMET, M.D.,
Surgeon to the Woman's Hospital.

June 18, 1866.

QUARANTINE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR—I voted with the majority of the members of the American Medical Association on the subject of recommending to Congress to test the utility of the quarantine measures proposed by Dr. Marsden of Quebec. In the notice which you took of the action of the Association, in the RECORD of May 15th, I think that a little reflection will satisfy you that there was some departure from the spirit of courtesy and impartiality which is so striking a characteristic of the editorials which usually proceed from your accomplished pen. As a representative of the majority of the association, I feel that an apology is due for certain expressions contained in the notice to which I am alluding. At the same time I desire to defend myself and those with whom I acted from the implied charge, either that we acted without an enlightened and comprehensive view of the subject which was before us, or, what is still worse, that our course was directed by a partisan spirit, andthat it was in disregard of the great interest of public health.

Now, I do not claim that those who voted with the majority were certainly right, and those who constitute the minority were certainly wrong. I admit that there was room for an honest difference of opinion, and that neither party has a right to impugn the motives of the other, or to bring forward an accusation either of moral obliquity or of mental inferi-

ority. It is not fair to set down all who voted against the reference of this subject to Congress as absolute non-contagionists. I have no doubt that we represented a variety of shades of opinion on the subject of contagion. But, at the same time, I suppose that we were pretty generally agreed as to the impossibility of excluding the pestilence by any quarantine regulations which might be adopted by the Government. We live in the midst of a great commercial community, having extended relations with every part of our country, and with foreign lands. If, in time of war, the utmost vigilance of a blockading squadron is insufficient to prevent vessels from entering the harbor which they are guarding, how is it possible, in time of peace, to prevent persons or goods from being landed at any point on our widely extended coast? But the question may be asked, what harm there would be in making the attempt, even if in the end it should prove to be unsuccessful. I will endeavor to answer this question, and I hope to be able to do so in such a manner as to convince gainsayers that the opponents of a rigid quarantine are not necessarily acting in a spirit of blind partisanship, or in disregard of the great interests of the public health.

The evils which are necessarily attendant upon a rigid personal quarantine are of such appalling magnitude, that nothing could justify the system, unless it can be shown to possess an undoubted efficacy in preserving the community from pestilential diseases. A personal quarantine subjects the unfortunate passengers on board of a ship, or the inhabitants of a town where a pestilential disease has broken out, to a privation of their personal liberty, often attended with extreme hardships to themselves, and to those who are dependent on them. It often compels them to remain for a long time in a situation where they are exposed to morbific agencies, by which they are brought into great peril, and by which their lives are frequently sacrificed. This evil is of such magnitude that I am inclined to the opinion that personal quarantine has been the means of destroying more lives than it has saved.

As an instance of the deadly effects of a rigidly enforced personal quarantine, it may not be out of place to allude to the merciless confinement of steerage passengers now going on in our harbor. When I read the daily record of the deaths of Scandinavian and German men, women, and children, offered as sacrifices on the altar of what I regard as a narrow-minded theory, I can scarcely repress the indignation which I feel with reference to a system so unworthy of an enlightened community in the nineteenth century.

The system of personal quarantine inflicts incalculable injury upon commercial cities to which it is rigidly applied, deranging the ordinary operations of commerce, and subjecting to great loss those who are engaged in them. It may be said in reply, that human life is incomparably more precious than commercial gains and material wealth. But if the business of an important commercial city is greatly deranged, many of its inhabitants will be thrown out of employment; they and their families will be subjected to severe privations, and will consequently become the ready victims of such diseases as ordinarily prevail in the community. And if, in spite of the rigid execution of the quarantine laws, the pestilential disease, which they were designed to exclude, should be introduced through some unguarded entrance, and should obtain a foothold in such a community, would not the ravages of the pestilence be fearfully increased by the very means which had been designed to guard against its entrance? I am not drawing a fancy picture. The records of the dreadful plagues which desolated Europe during the middle ages bear witness to the importance of the warning which I have given. Among the scenes of horror, almost defying the power of human description, the dreaded quarantines and sanitary cordons played a most conspicuous part, adding to the terrors of the pestilence, and greatly multiplying its victims.

A rigid personal quarantine acts injuriously upon the public health, by pandering to the popular prejudice which regards personal communication with the sick as being the principal means of spreading pestilential diseases, and by diverting the minds of the community from the more important sanitary measures by which the public health may be promoted, and the ravages of the pestilence may be more certainly limited. The impression thus made upon the popular mind, often leads to the inhuman abandonment or neglect of the sick, leading to a fatal result in many instances, where humane treatment and good nursing might have been followed by restoration to full health.

And persons relying on the protective power of quarantine may be led to neglect those habits of personal and domestic cleanliness, and of obedience to the known laws of hygiene, by which they may most effectually secure themselves against the ravages of disease.

My attention has recently been drawn to a statement in the New York *Daily Times*, that the cholera attacked a family living in a filthy neighborhood called Dutch Lane, in the outskirts of Elizabeth, in New Jersey. And the startling announcement was made that the inhabitants of the town held a meeting, and determined to arrest the disease by drawing around the devoted district a sanitary cordon, and rigidly excluding ingress and egress. Can it be believed that such a barbarous and inhuman practice could have been countenanced among the inhabitants of a Christian town in the nineteenth century? And if in consequence of an act so monstrous and cruel, the citizens of Elizabeth should experience the full power of the destructive pestilence, would there not be great force in the question: Those scores on whom the pestilence in Elizabeth "fell, and slew them, think ye that they were sinners above all men that dwelt in the land?"

Would it not have been more worthy of the inhabitants of an enlightened Christian community, instead of shutting up the unfortunate dwellings in Dutch Lane, in their filthy and insalubrious quarters, if they had extended to them the hand of friendly sympathy, if they had assisted them in cleansing and disinfecting their dwellings, and if they had aided and encouraged them in escaping to a more healthy locality?

In conclusion, I would express the hope that the members of our profession may profit by the experience of past ages, and may cultivate such enlarged and liberal views of this whole subject as will prevent them from going back to the exploded theories and practices of the dark ages, and from encouraging our civil authorities to inflict upon the community the terrible quarantines and sanitary cordons under which our ancestors groaned in bygone centuries.

Yours respectfully,

ALFRED C. POST, M D.

THE "CHOLERA CAMPAIGN" AGAIN.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—In your issue of June 15, 1866, I observe an article from the pen of Harvey E. Brown, Assistant-Surgeon U. S. A., upon the subject of the cholera on board the steamer *Henry Clay* loaded with U. S. troops in 1832. He states that the "expedition was broken up near Fort Gratiot." So indeed it was as to the troops on board the *Henry Clay*.

As I participated largely in the subsequent events of that campaign, it seems proper for me to continue the interesting history which Dr. Brown has commenced. Besides the *Henry Clay*, another steamer, the *Sheldon Thompson*, had preceded it, on board of which was Major-General Scott and his staff and several hundred U. S. soldiers bound for Chicago, and thence by land to Rock Island, in the Mississippi river. The *Sheldon Thompson* arrived at Chicago late at night in July (date not recollected). Soon after passing Fort Gratiot, cholera broke out on that steamer and many dead bodies were thrown into the lake, and on reaching Chicago the deck was covered with the sick. As there was no hospital at Fort Dearborn (Chicago), by my advice the two companies of U. S. troops were moved into tents one mile from the fort, and all the rooms were prepared for the reception of the sick from the steamer, and forty cases were brought to it the next morning soon after sunrise. Other vessels soon after arrived with troops from Fort Brady, Sault St. Marie, and, I believe, from Fort Howard, Green Bay, with cholera cases. The military posts from which they came were healthy, nor had the people there heard that cholera was in the country, as I was informed. Here appears a fact seemingly corroborative of the opinion expressed by the officer whom Dr. Brown quotes. The vessels spoken of above struck the track of the *Sheldon Thompson* at the head of Lake Michigan and followed it to Fort Dearborn (Chicago), about two hundred miles; and it is reasonable to suppose they passed all that distance in a cholera atmosphere. I could say much more in connexion with this cholera campaign, as I had the entire charge of the sick after their arrival at Chicago, but my only object in writing this article is to state facts which seem to sustain the views of Dr. Brown as to the way cholera is propagated.

Very respectfully,

S. G. J. De Camp,

Surgeon, U. S. Army.

Saratoga Springs, N. Y., July, 1866.

Medical News.

Personal.

Dr. Joel Morse, Surgeon of the 117th U. S. Colored Infantry, in charge of the Post Hospital, at Brownsville, Texas, was waylaid near the government corral, below that city, by the Mexicans, who lassoed him, dragged him into the chapparal, and there murdered him. This occurred May 27.

Dr. A. W. Webb and his son were murdered in bed, at Little Rock, Ark, on the 14th ult., for the sake of the plunder in the house.

Dr. Daniel Brainard and family, Chicago, and Dr. E. R. Hun, Albany, N. Y., according to latest advices, are at present in Paris.

Dr. J. H. Douglass has resigned as editor of the New York Medical Journal.

Surgeon John E. Summers, United States Army Medical-Director, and Brevet Major William L. Porter, are announced as the staff of the Major-General Commanding Department of the Cumberland.

Surgeon E. S. Bogert has been ordered to duty at the Naval Hospital at Norfolk, Va., *vice* Passed Assistant-Surgeon J. B. Ackley, ordered to the *Madawaska*. Surgeon Henry C. Nelson, from the receiving-ship *New Hampshire*, and waiting orders. Assistant-Surgeon William J. Simon, from the storeship *New Hampshire*, and waiting orders. Surgeon William Lowber and Acting Assistant-Surgeon E. D. Martin, from the receiving-ship *Princeton*, and ordered to the receiving-ship *Constellation*. Passed Assistant-Surgeon D. McMultrie, from the receiving-ship *Vermont*, and ordered to the steamer *Macedonian*. Surgeon J. J. Gibson, from the receiving-ship *Constellation*, and ordered to the receiving-ship *New Hampshire*. Acting Assistant-Surgeon George L. Simpson, detached from the steamer *Chicopee*, and ordered to the coast-survey steamer *Bibb*. Acting Assistant-Surgeon A. C. Fowler, from the coast-survey steamer *Bibb*, and ordered to the steamer *Chicopee*.

Henry James Anderson, M.D., LL.D., class of 1818, has been reëlected President of the Alumni Association, Columbia College, New York.

Henry Darwin Rogers, LL.D., F.R.S., &c., Professor of Natural History in the University of Glasgow, died on the 29th of May, at his residence, Elgin Villa, Shawlands. Professor Rogers was one of the most distinguished of American savants, and the only one who has received the compliment of a foreign chair.

Progress of the Cholera.

Liverpool, Eng.—Cholera has reappeared in one of the worst districts of Liverpool.

Prussia and vicinity.—It has also broken out at Stettin, near the mouth of the Oder, in Northern Prussia. This is but a step from Berlin, whence it may pass to the armies on the frontiers of Saxony and Bohemia.

Elizabeth, N. J.—The disease manifested itself fatally in this city on the 19th ult. The facts are substantially as follows: C. B., a pot-baker, in the employ of the Metropolitan Gas Company, of Elizabeth, moved from a mere shanty, situated among the flats, the cellar of which was ever filled with stagnant water, into a three-story tenement-house, placed on low grounds, with stagnant pools completely encircling it. Under this one roof no less than six families dwelt, in all 30 souls. C. B. was a man of intemperate habits, as was also his wife. To such an extent of poverty had his evil habits brought him, that he died without the common necessaries of life.

Sunday, C. B. passed away in the lager-beer saloons and rum-shops that infest his neighborhood, in company with another, who has since been taken down with the same disease.

On Monday morning he did not feel well enough to go to work, and mentioned to the neighbors that he felt the effect of the beer he had drunk. At 10 A. M. he was attacked with symptoms of cholera, and a physician was summoned. Vomiting, cramps, and purging ensued, together with copious "rice-water discharges;" and at 9 A. M., on Tuesday, he expired in convulsions.

A daughter, aged eleven, died at 11 P. M. of the same day, and on the 20th the wife was attacked. Immediately afterwards a well-to-do German living in Dutch Lane, one hundred feet distant, was seized with the disease, and died at 2 A. M. of the next day. While the last-mentioned person was sick, a dock laborer residing some two doors north was stricken, and also died after an illness of a few hours in duration. A medical commission, appointed by the Governor of New Jersey, have pronounced the cases as cholera. Another version of the origin of the disease is as follows: A person from a Quarantine ship, after remaining in Elizabeth for a few days, was seized with choleraic symptoms, and the infection, it is claimed, was traceable to the water-closets which he visited. The Mayor of the city, himself a physician, writes a public letter under date of June

27th, to the following effect:—"The reports in regard to cholera at Elizabeth, N. J., have been greatly exaggerated. We have had a few cases in a low, filthy, and sparsely populated locality; but at this time there are no cases, nor have there been any for the last three days. The citizens of the affected district have been relieved from all restrictions, it having been thoroughly cleansed and disinfected, and the disease having entirely disappeared."

Quarantine, N. Y.—It is a remarkable fact, that since the separation of the German and Irish emigrants on board the steamer Union—a period of over twenty-two days—there has not been a single case of cholera on board that vessel The whole number, 173, were accordingly sent to this city on the 3d inst. We have, at the time of writing, the gratifying assurance that those now detained in the hospital-ships are suffering from the resulting debility merely.

New York City.—Cases of cholera are occasionally reported, but the number in comparison with the population is exceedingly slight; or, to quote the language of Dr. Harris, the disease "has scarcely found foothold in the city." "The exotic pestilence, which has in well known localities suddenly destroyed a few lives," says Dr. H., in the same report, "seems to have been wholly subdued in every block where it has appeared." As an indication of the view entertained of the public health by authorities abroad, we may barely refer to the fact that the Captain-General of Jamaica, under date of June 6, virtually declares New York an infected port. He requires all vessels leaving the harbor to bring with them bills of health, countersigned by Her Majesty's Consul. Without these no landing of passengers or discharge of cargoes will be allowed.

At the commencement of the New York University, June 21, the following among other degrees were conferred:

Master of Arts.—Charles H. Ludlam, M.D., James Brown Burnet, M.D., Cornelius Van Riper, M.D, of class of '63.

Doctor in Philosophy.—J. Ghislani Durant, M.D., New York.

Doctor of Medicine.—Alex. W. Stein, N. Y.; Edwin A. Knight, N. H.; D. B. T. McBean, C. E.; Oscar T. Sherman, N. Y.; Charles M. Stanley, N. H.; R. Perez Martinez, West Indes; Emilio A. Sanson, West Indies; J. W. McAfee, Oregon; Jirges Churu Kyan, of Latakia, Syria; Nerses Kulugian, of Marash, Turkey; Kerock Guluzyan, of Marash, Turkey.

A New Asylum for the Insane.—The subject of a "Hudson River Asylum for the Insane," provided for by the last session of the Legislature, is being considerably agitated by prominent residents of the various cities and towns along the Hudson. The Governor has appointed the following-named gentlemen as commissioners, for the purpose of selecting a suitable site for the erection of the edifice, which is to cost half a million of dollars: A. W. Palmer, Amenia, N. Y.; Wm. S. Kenyon, Kingston, N. Y.; John Falconer, New York City; Dr. J. M. Cleaveland, Utica, N. Y.; and Joseph B. Taylor, New York City. It is barely probable that the building will be erected on grounds situated a short distance from this city, although Hudson, forty miles north, is also looked upon with favor by the commissioners. The Chairman of the Commissioners being the originator of the bill, and he being a resident of the county of Dutchess, are facts that will have their influence towards the selection of grounds near Poughkeepsie.

Marine Hospitals.—A bill providing for the sale of marine hospitals in which only twenty patients per diem are received, has passed the U. S. Senate.

The Almshouse — Department of Infants.—The Commissioners of Charities and Correction at their semi-monthly meeting, June 14, created a new department of the Almshouse, with the above title, which is to be under the Warden's superintendence, and will be for the benefit of infants under two years of age.

Fees for Attending Clinical Lectures at the Bellevue and Charity Hospitals.—The sum of three dollars has been fixed upon by the Commissioners of Charities and Correction, as the fee for attendance upon the clinical lectures of the Bellevue and Charity Hospitals.

Long Island Hospital College.—The commencement exercises of this college were held at the Athenæum, Brooklyn, on Thursday, the 28th ult. There were forty-six graduates.

Circular No. 6.—Surgeon-General Barnes has published in circular form for distribution, extracts from letters received by him from the leading surgeons in the world, bestowing the highest possible encomiums on his circular No. 6, and expressing the hope that our government will provide for the publication of a volume embodying the experience of the medical staff during the war.

A Sensible Ship's Captain.—The following, as rather significant in a sanitary point of view, we clip from the *Herald* of the 15th ult:

"The ship Antarctic, Captain McStoger, arrived at this port on the 11th instant, in thirty-three days from Liverpool, with five hundred and seventy-one steerage passengers, all in good health. One-fifth of her passengers were Germans, a similar class of people to those who had recently arrived infected with cholera, yet still not a single case of contagious disease broke out among the Antarctic's passengers; for the captain made it a rule, to be rigidly observed by all on board, that, so soon as he left Liverpool, all the passengers should be on deck at least once a day, the weather permitting; and that the between-decks should be swept perfectly clean and thoroughly scrubbed and washed down, and when dry an abundance of chloride of lime should be sprinkled around and under all the berths, as also other disinfectants should be used. Besides all these precautionary measures the captain adopted a plan peculiarly his own—not the old system of sprinkling it here and there about the ship, but he had the boxes disadjusted from the pumps and the disinfecting fluid poured down into the ship's bilge, and allowed it to remain there for the space of twenty-four hours. After that it was pumped out, which imparted to the ship a good and wholesome smell, and effectually destroyed the miasma usually arising from bilge-water, which is the great evil with which all ships have to contend, and which, in nine cases out of ten, is the principal cause of sickness on board ship, especially emigrant vessels which are not properly ventilated."

Errata.—Page 210, second column, twenty-eighth line from the bottom, read "the disease was *not* considered epidemic." Page 211, thirty-first line from top, instead of "two or three days," read "two to six days."

On page 214, second column, fourth line from the bottom of Dr. Dyer's remarks, for *placid* read *flaccid*. On page 215, first column, thirteenth line from the bottom of the page, read *Dr. C. Schweigger* instead of *Schreigge*.

Original Communications.

TRICHINIASIS, WITH CASES.

By H. RISTINE, M.D.,

OF MARION, IOWA.

This disease, which has prevailed so extensively in Germany during the last few years, and some isolated examples of which have been reported in the United States, has recently made its appearance in this vicinity; and from its novelty, the striking features which it presents, and the fatality with which it has been attended, has excited great interest with the medical profession throughout the country.

The circumstances connected with the advent of this hitherto unknown disease were somewhat peculiar. Two families, one living in town, the other at some distance in the country, and having no communication with each other, were each visited at nearly the same time with a disease characterized by symptoms of a very similar and, in some respects, unusual character. The first consisted of an old gentleman named Bemis, his wife, and two sons, Henry and Whitfield, and a son-in-law named Lansing, with his wife and four children: in all, ten persons. All of these, with the exception of Mr. Lansing, were taken sick about the fifth of May with symptoms resembling in some degree those of typhoid fever, for which the disease was at first mistaken, by the physician in attendance, Dr. E. M. Smith. On the 31st of May I was called in consultation, in connexion with Dr. Bardwell; and after a careful examination of the symptoms, which had by this time become fully developed, and their antecedent history, the disease was diagnosticated trichiniasis.

The symptoms varied somewhat in the different individuals, but they bore a sufficiently close resemblance to each other to justify the belief that they all proceeded from the same specific cause. William and Albert Lansing, aged 13 and 5 years respectively, were the first ones in whom the symptoms were observed. They consisted at the outset of diarrhœa, attended with more or less abdominal pain, and accompanied by a much greater degree of prostration than usually attends ordinary diarrhœa. They soon began to complain of muscular pains, and a general feeling of soreness and stiffness, followed by considerable febrile disturbance; œdema of the face and ankles; diaphoresis; furred tongue; itching at the nose; nausea; and thirst. In two or three days after the supervention of these secondary symptoms, the diarrhœa and œdema of the face subsided; the other symptoms became aggravated. The increasing soreness of the muscles rendered movements of the limbs difficult and painful; the tongue became dry and brown, with a well defined red border; pulse weak and increased in frequency; legs and thighs œdematous. Nausea marked the invasion of the disease, but the appetite has since been good. The temperature of the surface was not materially increased. Emaciation was extreme. The symptoms in both cases were much the same until the close of the second week, when the younger boy gave evidence of bronchial irritation, resembling the subacute bronchitis met with in protracted cases of typhoid fever.

The others were successively, and at very short intervals, attacked in the same manner. The same character of symptoms was present in the cases of Mrs. Bemis and Henry as in the two children, except that in the former the pulmonary organs were implicated from the commencement. During the third week the pulmonary symptoms increased in intensity, and presented all the characteristics of capillary bronchitis. They involved dull pain in side and breast; hacking cough, with a viscid muco-purulent and orange-colored expectoration; dyspnœa, which became exceedingly distressing when in a recumbent posture, and compelled the patient to maintain a semi-erect position; pulse from 100 to 120; respiration, 36 to 40; speech, jerking and interrupted; resonance on percussion normal; subcrepitant râle audible on both sides of the chest. No change was observed in the sounds of the heart. The bowels became tympanitic, and the urine scanty and high-colored. Indisposition to sleep and restlessness, and, in the case of Henry, mild and transient delirium, marked the progress of the disease.

The old man was in feeble health when the disease assailed him, and the symptoms in his case bore a closer resemblance to typhoid fever than in the others. No local derangements were manifested after the abatement of the diarrhœa. The tenderness of the muscles and prostration were so extreme as to render it impossible for him to change his position without assistance. The latter, indeed, almost amounted to paralysis, and was a marked feature from the outset. The pulse was weak and frequent; tongue dry, with a dark brown coating; abdomen contracted and tense; indeed, the intestines appeared to lie entirely on either side of the spinal column, and the pulsations of the aorta and common iliacs could be readily distinguished through the abdominal walls. Emaciation in his case seemed more marked if possible than in the others; the muscles of the extremities were exceedingly soft and flabby, and seemed to be almost entirely devoid of consistence. The other cases involved the same general symptoms as in those narrated above, but in a milder form.

Upon these symptoms, taken in connexion with the statements of the family, the diagnosis was based. On being interrogated, they stated that about three days prior to the first development of the primary symptoms, and continuing during a period of five or six days, they had all, with the single exception of Mr. Lansing, partaken more or less freely of uncooked ham, which was served upon the table in that condition. Mr. Lansing, who alone remained unaffected, was away at the time, and did not eat any of the raw meat; but he, on his return, eat freely of the same ham after it had been thoroughly boiled, his wife having made this disposition of the remainder. She eat a portion of it in a rare or underdone condition, but eat none of it raw; and although she had suffered severely in the same manner as the rest, was already convalescent. Henry Bemis, who appeared to be in the most critical condition, acknowledged that he had frequently gone to the cupboard between meals and eaten slices of the same meat. The relation of cause to effect was thus so clearly established that the character of the disease could not be mistaken; though, as the meat had all been consumed, we were unable to demonstrate it. All doubts nevertheless which could have arisen were very effectually set at rest soon after by the aid of the microscope. The day after the consultation, while the propriety of "harpooning" a portion of muscle was being discussed, the older of the children died; and upon examination, the muscles were found to be alive with trichinæ, most of them being free and a few encysted. A friend, who is a competent observer, counted one hundred and four trichinæ in a piece of the rectus femoris measuring one-twelfth inch square by one-twelfth inch thick, which would give nearly 180,000 to the cubic inch. Specimens of the muscle were sent to Professor Flint, Jr., New York; Professor Ingals, Chicago; Dr. Horr, Dubuque, and others, all of whom confirm the statement as to identity and numbers.

Objection on the part of the mother of the child precluded a critical examination of the thoracic and abdominal viscera; but no lesion could be discovered by inspection, except that the transverse and descending colon appeared discolored. Four others of the number have since died; but the unwarrantable prejudices on the part of the family have prevented our making examinations *post-mortem*, except in the case of the old gentleman, who died June 15th. As death in his case was purely from asthænia, with no noticeable functional derangements, we did not expect to find much of pathological interest in the examination of the viscera. The only lesions discoverable were some peritoneal adhesions, with the same discoloration of the colon observed in the other case. Trichinæ were found in all the purely voluntary muscles, diaphragm, pectorales, spleen, lungs, etc. They were not observed either in the heart or liver.

Mrs. Lansing and her brother have almost entirely recovered; her two remaining children are convalescent, and there is little doubt of their early and complete recovery. The treatment adopted was mainly supporting and expectant, with the hope of prolonging life until the parasite should become quiescent and encysted.

The other cases alluded to are six in number, and are included in four families named Jordan, relatives, living in the same neighborhood, twelve miles from town. They were all children, with ages ranging from seven to seventeen years. They had been complaining since the 27th of April, but the symptoms were not of such an aggravated character as to excite apprehension. I saw them once previous to the discovery of the real nature of the disease, of the cases in town, and I attributed the symptoms to their having eaten something of a poisonous nature. This was about three weeks after the first manifestation of the symptoms, and all but two of the patients were able to be about; indeed they had not been confined to the bed at any time. The symptoms, in all, were very similar to those in town, though of a much milder type; but there was no pulmonary disturbance in any of them. I prescribed a hydragogue cathartic and some palliative measures; and directed the parents, in case the children did not improve, to send for me. As I heard nothing from them for some time, I paid no further attention to the matter.

Shortly after the disclosures made in the Bemis family, I was again called to see the Jordan cases; I found them all convalescent except the oldest girl, who had been improving until within a few days, when she began to cough. This was hacking and frequent, and attended with little expectoration; respiration moderately increased; pulse weak; on percussion resonance normal; respiratory murmur a little rough; with a slight subcrepitant râle on both sides. The patient was emaciated, the lower extremities œdematous, and the muscles still painful. I suspected the cause, and inquired whether the children had at any time eaten any raw bacon. At first they did not recollect having done so; but it was incidentally disclosed by a child of one of the neighbors that all the individuals affected had, on the 25th of April, congregated at one of the houses, and while there had eaten chips of raw meat from a ham which was lying cut upon the table in the kitchen. On the 27th they were most of them seized with diarrhœa, followed in two or three days more by the other characteristic symptoms. In the oldest girl the order of succession was reversed, the muscular pains preceding the diarrhœa.

It is a universal practice here with the country people, to combat every kind of disorder with an active cathartic; and the ever-ready dose of pills was accordingly administered to each of the ailing ones. This treatment, which is inculcated and carefully fostered by the patent-medicine venders through the medium of almanacs, happened, in this instance, to have been the only kind that could, as far as is at present known, have been of any avail. Every one of the children who took the purgative have recovered or are convalescing, after having experienced a regular succession of the symptoms of trichiniasis. The oldest girl, however, was in town throughout the following week; and, as she was in apparent good health on leaving home, did not take the cathartic. She is the only one who is now in any danger.

None of the ham of which they had eaten was left; but its counterpart, which had been put up in brine, was examined and found to contain trichina cysts in abundance, though I have yet been unable to determine whether the worms are living or not.

The opinion prevails very extensively in this vicinity, that the trichina spiralis exists in the flesh of hogs which have been affected with hog-cholera. The symptoms in the latter disease, as it has manifested itself here at various periods during the last three years, are, first, diarrhœa, followed by swelling of the neck, stiffness of the limbs, debility, muscular atrophy, and frequently cough; phenomena almost identical with those of trichiniasis.

The ham which produced the disease in the Bemis family was cured by a son of Mr. Bemis, residing near town. He had had some cholera among his hogs, but this one was not known to have been diseased; the other ham and one of the shoulders were eaten by his family, but always in a well cooked state. The other shoulder having become tainted, was thrown out, and devoured by a fine sow, a short time before the discovery of trichinæ in the ham. She was soon after taken sick, and died with all the symptoms of hog-cholera. On examination, her muscles were found to be infested with free trichinæ in great numbers. There had been a great deal of cholera among the hogs in the Jordan neighborhood, but none were packed which were known to have been diseased. In order to test the matter, during a recent visit of Dr. Horr of Dubuque, who came here for the special purpose of investigating the disease, and to whom I am indebted for some valuable suggestions, we excised a portion of muscle from the ham of a living hog, which was said to have been sick last fall with the cholera. We have not yet been able to discover the parasite, but we will not feel satisfied without a further investigation.

The following conclusions may, I think, be consistently deduced from the foregoing statements:

1. That symptoms indicating the presence of young trichinæ in the tissues were observed as early or earlier than the fourth day after the ingestion of the trichinous meat.

2. That cysts are formed as early as the twenty-fifth day.

3. That other things being equal, the severity of the symptoms is in direct proportion to the amount of trichinous meat eaten.

4. That an active cathartic given while the worms are still within the intestinal canal, is effectual to a certain degree in causing their expulsion, and mitigating the severity of the disease.

5. That youth affords no immunity from the effects of the disease.

6. That salting and smoking do not destroy the vitality of the parasite.

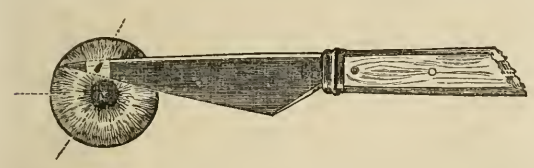
7. That thorough cooking accomplishes this object.

A METHOD FOR REMOVING A FOREIGN PARTICLE FROM THE CORNEA.

By C. R. AGNEW, M.D.,

OF NEW YORK.

A. B., a machinist, while "driving home" with a hammer and chisel the packing of a pump, detached a bit of iron, which entered and imbedded itself in his right cornea, a little below its centre. I saw him for the first time on the 22d of the present month,



one year after the occurrence of the accident. Immediately after the occurrence of the accident he sought advice, and had persistent but unsuccessful efforts made to remove the foreign particle. For twelve months the particle of iron lay in the cornea, keeping up a constant irritation. When the case came under my observation, I found that the particle of iron had perforated the cornea, tapped the aqueous chamber, and was resting with one end in the anterior chamber, and the other on a level with the external surface of the cornea. Iritis was rapidly coming on. I soon satisfied myself that any attempt to remove the particle of iron by simple manipulation from without would result in forcing it into the anterior chamber, and lead to loss of the eye by consecutive inflammation.

Accordingly I placed the patient under an anæsthetic, and proceeded to operate for the removal of the particle, as indicated in the diagram. I first held the eyelids apart by means of a spring, or wire speculum, then passed a Beer's knife through the cornea behind the foreign particle, and out again towards the nasal margin of the cornea, so as to present a retentive barrier behind the foreign particle.

An assistant now held the Beer's knife, while I gently dug out the particle from the depths of the corneal ulcer. A few drops of a solution of sulphate of atropine, two grains to the ounce of water, were now dropped upon the eye, and a light compress wet with cold water applied. In two days all traces of the incisions in the cornea had disappeared, and the small ulcer left by the removal of the foreign particle was kindly healing up.

The main points in the case are, that the foreign particle had penetrated and drained the anterior chamber; that it was lying in the corneal wound, and keeping up a violent irritation, threatening destructive inflammation; and so nicely balanced that the slightest effort made to remove it by manipulation from without would have tilted it into the anterior chamber, where it might have been lost, and thus have become the occasion of destructive irido-choroiditis.

The diagram shows the Beer's knife traversing the anterior chamber behind the foreign particle, which is lodged in an isthmus of cornea intervening between the incisions.

Tax Levy for Hospital Purposes in Mississippi.—General Fisk, of the Freedman's Bureau in Mississippi, has levied a *per caput* tax of one dollar upon the colored people under his jurisdiction, for hospital purposes, in the event of a choleraic visitation. Effective measures have been adopted to enforce the order.

NOTES ON THE TREATMENT OF STRICTURE OF THE URETHRA.

By WALTER TYRRELL,

LATE DEMONSTRATO ROF ANATOMY AT ST. THOMAS'S HOSPITAL, LONDON.

I am desirous of laying before the profession a few remarks on the treatment of stricture, which have occurred to me in the course of practice. In treatment of spasmodic stricture, I think that we do not at present lay sufficient stress on the value of local applications, more especially the caustics In the irritable, acutely sensitive spasm which scarcely admits of being touched with a bougie-point, which bleeds readily, and which we usually find in men of sanguine, irritable temperament, I have found the use of potassa fusa most effective. The manner in which I use it is as follows: I have a straight sound of small diameter (No. 4), with a platinum point, which receives and admits of a small piece of caustic, the point of which protrudes through a small aperture in the apex. I pass this rapidly down to the stricture, holding it firmly pressed against the obstruction until it yields. On withdrawing it a stream of water will almost invariably follow. If the case is an obstinate one of frequent recurrence, I use the potassa fusa. If it is recent, I prefer the nitrate of silver as less severe, and sufficiently efficacious. I have never seen any serious trouble follow the use of either remedy, and the only fear is an increase of the hæmorrhage; but this I have only seen in cases where the caustic has been too lightly applied, and the instrument withdrawn too rapidly. A few cases will illustrate the use of this remedy.

T. R., aged 32; subject to spasmodic stricture and retention. While travelling a distance by rail, spasm and complete retention came on. Came to the Hospital suffering greatly from distension. After hot-baths, opium, and numerous attempts too pass instruments had failed, the spasm yielded instantly to an application of potassa fusa.

J. S., aged 40; had been for some years subject to stricture, at times aggravated with spasm. Had recently been drinking hard, and an attack came on. After the failure of all the usual remedies, including the administration of chloroform, the spasm gave way to the use of the caustic potash.

With regard to permanent stricture, I think that we rely too much in our present mode of treatment on the rapid dilatation, forgetting that a stricture rapidly dilated, contracts as rapidly, and that really the best form of treatment is absorption of the stricture by long continued pressure. I was especially struck with the power of contraction of the urethra after rapid distension in four cases of calculus in the bladder in the female. In the first of the four cases distension was made gradually to extract a small stone. Sponge-tents were used for three days, until the forefinger could be passed into the bladder. In this case, after the removal of the stone, the patient suffered for a length of time from incontinence. In the other three cases the dilatation of the urethra was made rapidly; in one case a stone nearly one inch in diameter was removed in a little less than three-quarters of an hour. In all the cases the recovery from the dilatation was not only most rapid but complete, as in neither case did any incontinence remain. If we reflect for a moment that a stricture is nothing less than a cicatrix, we shall see how useless any sudden and intermittent dilatation must be. It may produce distension, or even rupture of the band of the cicatrix; but the subsequent contraction is just as rapid. I find the most effective treatment to be, to lay the patient in a recumbent position for a short time, and

pass the largest gum-elastic catheter I can into the bladder, fastening it securely. If much irritability comes on, I find a large dose of hyoscyamus, or, in severe cases, of opium, gives relief; or what is perhaps better still, a large opium suppository. On the third day I remove the first instrument, and there is usually little or no trouble in passing one a good deal larger. This done, the difficulties of the case may be said to be over. The urethra soon becomes accustomed to the catheter, and in a short time a free discharge down the sides of the instrument shows the process of absorption of the stricture. If in the early part of the case any rigor should occur, it need not cause alarm; or should the instrument be removed, it will almost always give way to warm fomentation, or the hip-bath, with a full opiate. The following (one of the most severe cases I ever saw) shows how effective this treatment may be, even with most unpromising cases:

A. T., aged 38; trainer of race-horses. Stricture of ten years' standing. Being a free-living, careless man, has allowed his disease to increase fearfully; has suffered on numberless occasions from retention, and his urethra is perforated in all directions with false passages. Owing to his being constantly in the saddle, and subject to great exposure, the disease was much aggravated, and the consistence of the stricture was almost horny. On the second occasion on which I saw him, I succeeded in passing a No. 3 gum-elastic catheter, which I recommended him to have fastened into his bladder. This he consented to, and on Nov. 17 he took to his bed. He kept me up nearly all the first night, as the irritability of the urethra was so great, and I was much afraid that I should be obliged to remove the catheter. He took during the night, 3 grs. of the extract of hyoscyamus. I also used a large quinine suppository. He was easier during the day, but the next night he was, if possible, worse. He was almost violent with pain and irritation, and continually tossing about in the bed. During the next day an offensive discharge commenced to flow down the sides of the catheter. A good deal of mucus also passed down the catheter, showing some considerable irritation of the bladder. Accordingly, to-day removed the No. 3, and replaced it by one two sizes larger; this was done with considerable difficulty and pain. At night he was again very restless, so much so that I was obliged for some hours to remove the catheter. I replaced it, however, early next morning, and kept it in until the 22d. I then replaced it by a No. 8. This caused him great pain at first, but by perseverance I was able to keep it in his bladder. At this time he had a full dose of opium in a suppository every night. On the 25th, I passed a No. 10, and his water, owing to its passing off more readily, became less offensive, though the discharge from the urethra was still great. From this time he continued to do well; his urethra became more accustomed to the pressure of the catheter. On the 8th of December, I removed the last catheter, a No. 12, from his urethra, he having been under treatment for twenty-two days. During the latter part of the treatment it is not at all necessary to confine the patient to his bed. This patient is now quite well; he passes a No. 10 sound for himself twice in the week to prevent the contraction of any remains of stricture; but he is able to follow his occupation with comfort. In this case success was only gained by the utmost obstinacy in the treatment. In most cases I found the irritation from the instrument to be less severe. There may undoubtedly be cases in which it is not possible to follow this plan of treatment, but when it is possible, I am convinced that it is the shortest and most effective method of cure.

Green Avenue. Brooklyn, N.Y.

Original Lectures.

ON CHOLERA.

By A. CLARK, M.D.,

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Lecture VIII. Part I.

The Treatment of Cholera.

We may now inquire whether any treatment is curative in the several stages of cholera. It is generally believed that the diarrhœa of the first stage, if sufficiently prolonged to permit the application of medical precepts, is as easily cured as a diarrhœa of any other kind. This is not quite true. A diarrhœa in cholera seasons is more dangerous and less uniformly manageable than in ordinary seasons when cholera is not prevailing. At the same time, here is the great field of professional usefulness; this is the period of the disease when cures should be effected. Then what are you to do? First, send the patient to bed, and let him have the advantage of warmth and rest in the recumbent position. It is well to obtain a little diaphoresis—not profuse sweating, but a soft skin, or gentle perspiration, such as may be caused by a warm bath, or better, by a foot bath. The administration of cathartics is not generally thought proper; and this is especially true of the salines. Indeed all cathartics, while cholera is threatening, should be avoided as far as possible in those not attacked. Many an instance has come to my knowledge of cholera apparently precipitated by the administration of medicines of this class. Castor-oil is the least objectionable, and I can conceive may, under certain circumstances, be serviceable; for example, when a diarrhœa has been provoked by accumulated fæces in the intestines, or by errors of diet, or by the indigestible portions of certain fruits. In general, the first aim is to check the diarrhœa. Among the medicines that we use for this purpose, opium or an opiate almost always finds a place. A favorite prescription in past epidemics is the following:—"Tinct. opii, spt. camphor, tinct. capsici, tinct. catechu, tinct. caryoph., equal parts. Of this a teaspoonful more or less frequently according to the urgency of the symptoms.* Those who entertain the view that this is a disease which replaces miasmatic fevers, advocate the use of quinine. Indeed, it is claimed that quinine alone will suppress the discharges. The astringent preparations of iron have some reputation, as the pernitrate, or the persulphate, with or without quinine. A pill that Dr. Houston thinks as serviceable as any, is made up thus: Acetate of lead and camphor, each twenty-four grains; acetate of morphia, two or three grains; oil of cinnamon, five drops; mucilage of gum arabic, sufficient. This is made into twelve pills, and one to be given every two, three, or four hours, according to the nature of the case. Another favorite prescription is what is called Hope's mixture. Its composition is as follows:—Nitric acid, one drachm; camphor mixture, eight ounces; these to be mixed, and afterwards the tincture of opium added to the amount of two scruples. One quarter of this makes a dose, to be repeated more or less frequently.

* Dr. Squibb, in "Advice upon Epidemic Cholera," lately published, gives the following formula, which he thinks more useful by the addition of chloroform. He proposes to call the preparation the "Compound Tincture of Opium," or "Diarrhœa Mixture." It is tincture of opium, spirits of camphor, and tincture of capsicum, each one fluid ounce; purified chloroform, three fluid drachms, and a sufficient quantity of stronger alcohol to make the whole measure five fluid ounces. He advises a teaspoonful as a dose, to be taken after each stool. If the diarrhœa increases he would double the dose. The mixture is suggested for popular use till a physician can be obtained.

If the diarrhœa begins after a surfeit, or there is reason to suppose there is undigested food in the stomach, a quick emetic is regarded as important. Alum, the aromatic confection, the compound spirits of ammonia, chalk mixture, hæmatoxylon, kino, and calomel in grain doses, are in the list of remedies for this stage; each, however, is given with opium or its tincture. But none of these medicines, regarded as astringents, are as highly valued by the English physicians as the acetate of lead. It is given with opium, one to eight grains of the acetate, and one quarter of a grain to a grain of opium; in the small doses, every hour. Some physicians claim success in the use of the pulvis cretæ compositus cum opio; others prefer hydrargyrum cum creta, and Dover's powder. These will, some of them probably, answer your purpose; but rest in bed is regarded as more important, perhaps, than any special medication.

Passing to the serous diarrhœa—the symptom soon attended by cramps and vomiting—the question comes whether any particular remedy is specially serviceable. Dr. Fuller—the same, I believe, who has made a high reputation by his treatise on rheumatism—holds that sulphuric acid, first suggested by Mr. W. S. Cox, of Kensel Town, England, has almost sovereign power over this stage of the disease. His mode is to add to eleven ounces of water one ounce of dilute sulphuric acid, and to give of this three tablespoonfuls every half hour; and he claims that it is infallible; but we hear of so many infallible remedies for cholera in its various stages that we have come to doubt infallibility, even in Dr. Fuller. With this, he sometimes combines in the alternate doses, half a drachm to a drachm of chloric ether. He occasionally commences the treatment by administering two grains of opium. He sometimes adds five grains of calomel in one dose. He also employs sinapisms to the stomach, and friction to the extremities. This treatment has the support of some good names in England. M. Worms, of Gros-Caillou Hospital, uses sulphuric acid in sweetened water, one part to three or four or five hundred, as a drink, and attaches great importance to it. Dr. Hutchinson however, in 1854, says: "Sulphuric acid, so highly recommended by Dr. Fuller, was prescribed, but without any benefit."

Sulphur in substance has been proposed, and the suggestion comes from the idea entertained by some persons that the disease is caused by vegetable fungi. Dr. Grove takes of precipitated sulphur, one drachm; bicarbonate of soda, one drachm; compound spirits of lavender, six drachms, and of water two ounces, to make a mixture; of this he gives a tablespoonful every half or quarter of an hour. This is for him a most serviceable remedy. He says that it checks the serous discharges and restores warmth. He refers to the experience of some of the Scotch people, who treated themselves for what was supposed to be cholera with great success, using only brimstone and whiskey. He refers also to the *London Practice of Physic*, 1692, in which sulphur and the alcoholics are spoken of as the only means of curing a severe and fatal diarrhœa which prevailed in England about that time. The suggestion of Dr. Grove has the support of Dr. Cormack, and may be tried; but I fear it will share the fate of all cholera specifics.

Creasote, says Dr. Cormack, if the patient does not refuse to take it on account of its odor, hardly ever fails to arrest the serous discharges. Two or three drops given every hour or two, it is claimed, will constrict the vessels and stop the diarrhœa. This may be the language of hope, but it is not the language of science. That creasote may be serviceable is very possible; but to say it hardly ever fails, is but to bring discredit on him who says it.

In the treatment of the third stage of cholera, chloroform has gained considerable reputation. It was used by the late Professor Horner, of Philadelphia, in the cholera of 1849, and used with some success. Dr. Hartshorn, of Philadelphia, has presented to the profession what he regards as a useful formula:

℞. Chloroform., f ʒ ij.
Spt. Camph.,
Tinct. opii, ā ā f ʒ iss.
Ol. cinnamom., gtt. viij.
Alcohol, ʒ iii.
M.

Professor Horner and Dr. Hartshorn gave chloroform in collapse, a few drops every few minutes, combined with camphor and laudanum, and the latter thinks its success extraordinary. Of Dr. Hartshorn's prescription five to thirty minims or more are to be given, with ice internally and warm applications externally. Dr. Davies (Dr. Gull's Report) had at one time very great confidence in chloroform in the stages of serous diarrhœa and in collapse, and gave it in doses of seven to ten drops every quarter or half hour, claiming very great success; in nine cases of cholera and thirteen of the worst diarrhœa, only one death; in fourteen cases treated by Mr. Tower, under Dr. Davies' observation, only one death, and so on. In subsequent reports his trust in chloroform is gradually more and more shaken, till in his fourth and last he says he has lost confidence in it when used alone. On the whole, summing up all the reported experience which I have been able to find, it cannot be claimed that this medicine has any great curative power. It often allays the vomiting and cramps, and is worthy of further trial. Chloroform has been used by inhalation, and the effect of its use in that manner is to allay the cramps and suspend the vomiting, but unfortunately the patient must be kept continually in a state of slight anæsthesia, or these symptoms will return. Its administration does not seem to have materially diminished the mortality from cholera, though it has doubtless rendered the disease less painful, and may be worthy of use for that purpose.

Strychnine is very warmly advocated by Professor Fraser, of McGill College, Montreal, to be used in impending collapse, together with the means which tend to stop the discharges. He reports twenty-five cases treated by it, in doses of one-forty-eighth of a grain, dissolved in acetic acid and alcohol, repeated every quarter of an hour, sometimes every five minutes, until six or twelve doses are given, or till there is a reaction or specific effects. Twelve doses would make one-fourth of a grain. He thinks it has great power in sustaining the action of the heart and capillary vessels. His success he reports as twenty saved; and of the five others, one only died in collapse, the others in the stage of reaction. I have had no experience with the drug given as here suggested; but as it was used together with means to stop the discharges, and these means are not specified, it is pertinent to inquire how the credit of these cures should be divided. This suggestion was made near the end of the last epidemic (1854), and there has been little opportunity to test its value.

Now, of collapse. *Electricity* has been tried. It seems to revive the energies for a little time. The current has been passed from the neck to the epigastrium, to excite the action of the diaphragm, and from side to side to stimulate the heart. In one patient of Dr. Peacock, a child, the temperature in the mouth rose from 88° to 92°, and the pulse became fuller under the influence of this agent, and the patient recovered; but the same physician was not able to sustain this success. Galvanism has a similar power. But, all

considering, we may say of electricity and galvanism, that while in collapse they have the power of increasing warmth and bringing back the pulse temporarily, it is doubtful whether they have yet saved a single life. The *wet sheet*, used after the manner of the hydropathists, was tried pretty extensively in England during the epidemic of 1849. The result was a slight reaction, but it did not gain the grade of a curative agent. *Affusions* have been tried. Patients have been placed in a warm hip-bath, and both warm and cold water suddenly poured over the head, shoulders, and body. This is done quickly, and the patients are immediately placed in bed, in warm blankets. This plan has the power of producing some reaction, and is on the whole thought favorably of. Its effects are said to be better than those of the hot bath. *Oxygen* has been used in collapse by inhalation in a few instances, but it does not seem to have gained favor, because the temporary good effects have been followed by unfavorable results. The patients have almost all died. *Counter-irritation.*—Caspar dipped cloths in alcohol, laid them upon the abdomen, then set them on fire; but the patients did not get well for all that. Indeed it is striking that this sort of cauterization did not seem to produce much redness upon the surface to which it was applied. Milder counter-irritation, however, is generally resorted to; stimulating applications and warmth in various ways; mustard to the abdomen, the legs, and chest, particularly to the epigastrium, is hardly ever omitted. I do not suppose we can say that rubefacients, so used, have been of any *signal* service. They have the negative merit of innocence, and probably the positive one of arousing, in some degree, the failing nerve powers, and of quickening somewhat the capillary circulation. *External warmth*, notwithstanding it is often disagreeable to the patient—notwithstanding his cold arms feel heated—is pretty generally received with favor. A moderate degree of artificial heat aids in restoring to the body its natural temperature, and improves the chances of recovery. *Emetics* have been proposed—of common salt, or mustard, or sulphate of zinc, or ipecac.; and the result of experience seems to be that they do to a certain extent arouse the heart to activity, that they bring a little warmth to the surface, and for a moment distribute the blood a little more evenly through the body. But they are not curative; their effect is temporary, and the discomfort they produce is often considerable. They may be useful in another way. One who has seen little of the disease can hardly understand why the vomiting it produces should not prohibit the use of emetic drugs; but that vomiting, though it may cause the ejection of a great deal of fluid secretion from the stomach, is not forcible and violent, and often leaves undigested food in the organ. This is demonstrated in examinations after death. Such undigested food has been found after two days and more of vomiting. To remove this is to remove a source of irritation, and an emetic will often do it. *Ice, and cold drinks.*—A distinguished writer on the treatment of cholera remarks that it is gratifying to find that the experience of the last epidemic has confirmed the whole profession in the use of ice and cold drinks for those in collapse and approaching collapse. The burning thirst is allayed by swallowing portions of ice. It is true that we have to contend with the disposition to vomit; but the chances of the patient seem to be improved in two ways—by relieving suffering, and supplying to some extent water, which his blood lacks. Cold drinks and ice, then, have been received with extraordinary favor; and though not heroic measures, if they palliate only, they give nature a better opportunity to do a kind act. Dr. Murray, in India, states that *injections into the rectum, at a temperature of* 120°, were in his hands of great service in restoring warmth to the body and giving force to the pulse. He used a weak solution of common salt and carbonate of soda, a pint at a time, and repeated it every half hour, or less frequently. The injections were usually retained but a few minutes, yet sufficiently long to produce recognisable effects. It may seem that giving cold fluids by the mouth, and heated ones by the rectum, cannot both be defended; that one would neutralize the effects of the other. But cold applied to the mucous membrane, in the upper part of the alimentary canal, diminishes the hyperæmia, the irritation, and the vomiting; while the injection falls upon a membrane less likely to be engorged, and probably increases the warmth of the body without doing any local mischief. Dr. Joel Foster, of this city, informs me that he has used warm injections for this purpose with advantage, and thinks he can cause them to be retained for a longer time by holding a compress against the anus.

Considerable success has been claimed in behalf of a *saline solution*, first proposed by Dr. Stevens, then of Jamaica. Believing that analysis showed some loss of saline constituents of the blood, it occurred to him that these could be restored by administering salts dissolved in water whenever the patient could retain liquids. Drs. Gull and Baly inform us that at the Cold-Bath Fields Prison other modes of treatment were tried, and the patients all died; the number was not very great, however, treated by other plans; for after five or six had died, the physicians adopted Dr. Stevens' method. The result was, that of patients so treated in the prison hospital, and in a lane in the neighborhood, forty-four out of forty-six recovered. This would be extraordinary success if the patients were all in the dangerous stage of the disease. Figures, as I have said, are uncertain guides when not attended by full explanations; yet we have but little else to trust, and so must do the best we can with them. The mixture used on this occasion was, bicarbonate soda, half a drachm; common salt, one scruple; chlorate of potassa, seven grains; repeated every hour in such quantity of water as might seem expedient at the time of prescribing. Another solution has been used also, which is: common salt, half a drachm; tartrate of soda, twelve grains; phosphate of soda, eight grains; dissolved and taken at a draught. With reference to the appropriateness of these prescriptions, I may say a word when I come to another branch of the subject. This saline treatment of Stevens, though received with extraordinary favor in certain places, has not been successful in others; and the summing up by Gull and Baly is substantially this, that while at times it seems to have aided recovery materially, at other times it seems rather to have increased the evacuations and the danger. It has at least this merit—that when it is mainly relied upon, more dangerous medication is avoided. *Camphor* is a medicine that has been used pretty extensively in all the stages of this disease. In the collapse it has the reputation of allaying the cramps in a certain degree, and lessening the irritability of the stomach, and consequently the vomiting. It is certainly a safe medicine, and is believed to be as good a diffusible stimulant as can be used; and given in solution in chloroform, is perhaps of some advantage.

I have here a manuscript paper which was sent me in 1854 or 1855 by Dr. O. H. Smith, then of Williamsburgh, now of New York, giving a summary of the treatment of cholera in the hospital of which he had charge in 1854. It contains one statement which I think is worthy of consideration. I present it to you in his own words: "Sulphuric acid, so highly eulogized by Dr. Fuller, of St. George's Hospital, was prescribed, but I could get

no good results from its administration. Strychnine, as recommended by Prof. Fraser, of McGill College, was given, and I think it may have had some effect in postponing the period of collapse; but I do not think it had any control over the rice-water evacuations. I gave this remedy in view of the opinion that cholera poison acts especially on the gauglionic nerve centres of the abdomen; but its effects were such that I put it down as a doubtful as well as dangerous remedy. I tried the oxide of bismuth. It seemed to have no control over the watery discharges; but I think it relieved to some extent the retching and vomiting, so constant after the discharges had been arrested. In all cases the abdomen was enveloped in strong mustard poultices." Dissatisfied with all these agents and means, except the last, Dr. Smith turned to brandy.* "To restrain the rice-water evacuations," he says, "I have ordered an injection into the bowel, containing an ounce of brandy, two or three ounces of strong tea, and five or ten grains of the sugar of lead, to be repeated after every discharge. At the same time I ordered a soft pill, containing quinine, calomel, and camphor, of each half a grain, to be given every fifteen or twenty minutes; the whole abdomen being covered with mustard poultices. The patient was also directed to take brandy and water every five minutes by the mouth." The vomiting and dejections soon ceased. The feature of this treatment which has been but little if at all tried, is the injection of diluted brandy into the intestines, and it is to this that Dr. Smith attaches chief importance; but he found that brandy diluted with water was equally beneficial. His results induce me to commend his method to further trial, notwithstanding the general opinion which is adverse to the use of stimulants of this kind during the particular stage of which we are now treating. Dr. Smith here reports the cases of two children having rice-water discharges, to whom the parents administered two or three tablespoonfuls of brandy in each case, and made the children fairly "drunk;" the discharges ceased—none occurred after the full effects of the brandy were felt. These cases taken alone, would argue strongly in favor of brandy and the free use of it. But two cases will hardly affect a rule derived from the observation of several epidemics.

There is another mode of treatment, if it can be so called. A considerable number of physicians having charge of cholera hospitals, observing the ill-success of all plans of treatment, have felt justified in leaving a number of patients without any treatment besides cold drinks and ice to satisfy their thirst, and proper bedclothes. Dr. Hutchinson says, referring to some he left in this way, that "The most valuable experience derived from the observation of the recent epidemic (that of 1854) is, that cholera patients should be disturbed by remedies as little as possible. And when in any case we are at a loss to know what treatment to adopt, or if we find the patient growing worse under the influence of remedies that we think best adapted to the case, the better plan is to rely on the *vis medicatrix naturæ*. This I have repeatedly done with much satisfaction; patients in the deepest collapse having reacted without any treatment; in one case without even ice, beef-tea, or external applications." Again he says: "When the vomiting proved obstinate, nothing but lumps of ice and teaspoonful doses of beef-tea were allowed; but frequently even these were withdrawn, and the patient permitted to remain unmolested by any kind of treatment for twelve, fifteen, or twenty hours, with the most satisfactory results, even when there was great depression of the circulation, the skin cold and cyanosed, and the rice-water discharges continuing." Other physicians have made similar statements. Dr. Hutchinson's mortality was, however, not very light. He treated one hundred and seventy patients in his hospital, of whom ninety-seven died; eighteen were in the first stage, and all recovered; seventeen were in partial collapse, of whom one died; one hundred were in complete collapse, of whom eighty-two died; five died in the consecutive stage out of nine; and nine of other diseases, including diarrhœa, out of twenty-six. It does not seem then, do the best we can, that we have any great control over this stage of collapse.

Now a few words regarding injections into the veins in collapse; not because they have been established as useful, but because the results, however temporary, are very interesting. The plan was first proposed and put in practice by Dr. Latta, of Leith, Scotland. He used a saline fluid. He adopted for his injections this formula: two or three drachms of common salt; two scruples of subcarbonate of soda, in six pints of water, to be injected at a temperature of 112°. He selects this temperature because, he says, if it is cooler it produces a chilly feeling in the patient; and if it is much warmer, even as warm as 115°, it stimulates the heart too much, and produces a sense of weakness and fainting. The report of his first experiment I will read you in his own words:

"The first trial was made upon an aged female, whose case was utterly hopeless (indeed he feared she would die while he was making the preparation). Having inserted the tube in the basilic vein, anxiously I awaited the effects; ounce after ounce was injected, but no visible change was produced. Still persevering, I thought she began to breathe a little less laboriously. Soon the shrunken features, and sunken eye, and fallen jaw, and face pale and cold, bearing the manifest impress of death's signet, began to glow with returning animation; the pulse, which had long ceased, returned to the wrist, at first small and quick, but by degrees becoming more and more distinct, fuller, slower, firmer; and in the short space of half an hour, when six pints had been injected, she expressed herself in a firm voice, saying she was free from all uneasiness; she actually became jocular, and fancied all she wanted was a little sleep. The extremities were warm, and all the features bore the aspect of comfort and returning health (but hear the sequel); the purging and vomiting soon returned, and she died five and a half hours after the operation."

This, unfortunately, is the history of very much the larger number upon which this experiment has been performed; of almost all. Dr. Baly says he has attempted this medication in six cases, and all have died. Dr. Streeter says that the experience of the epidemic of 1849, in England, has settled the question, has determined the inexpediency of a resort to these injections. Dr. Latta, however, reports another case. It is his first, perhaps his only, successful one. The patient was a female aged fifty, whose condition was hardly more hopeful than that of his first case. He injected one hundred and twenty ounces of the solution, the effect of which was magical. He says: "The restoration appeared to be complete, but the diarrhœa returned, and in three hours she was again prostrated. Again he injected one hundred and twenty ounces of the same solution, and again he had favorable results. In twelve hours three hundred and thirty ounces had been injected, and the reaction was fairly established.

* I have to-day (July 18) received a letter from Dr. Smith, in which he informs me that Drs. Walser and Bissel, in the quarantine ships, speak favorably of brandy injections; that Drs. Otis and McLean have each treated a case on his plan with good results. These cases will be published in the RECORD. Dr. Dalton, Sanitary Superintendent, informs me that as far as he can judge from three or four cases reported to him, there is a probability that these injections will be useful.

In forty-eight hours she smoked her pipe. She was afterwards taken to the hospital, where she had some typhoid symptoms, but finally became convalescent." Dr. Lowery states that he has performed this operation twenty-six times, and had four successful cases, and believes that the injections must be introduced slowly. If as good a result as that can be obtained with any degree of uniformity, it would seem proper to resort to the operation, because cases in extreme collapse are the only ones on which it is ever attempted—cases regarding which there can be entertained no reasonable hope from any other method of treatment.

Dr. Johnson states in his "Notes" that Dr. Mackintosh has performed this operation on 156 patients, having had 25 recoveries and 131 deaths, and thinks that such a mortality is "frightful." It corresponds very nearly with that of Dr. Lowery's cases; and supposing all the patients to have been *in extremis*, I should be unwilling to adopt this epithet. It may be true "that if all these 156 patients had been left without treatment a larger proportion would have recovered;" but it is at least a fact worth knowing, that about one in six of those whose veins have been filled with this very crude imitation of blood constituents could survive the experiment. To my mind it gives the hope that a better method may be attended by greater success.

It is reported, though I don't know who performed the operation, that in 1832 there was a single successful case in this city. Drs. Gull and Baly, in summing up the history of this treatment, seem to be of the opinion that it is worthy of further trial; though Dr. Streeter regards it as completely condemned. Dr. Hutchinson used saline injections in five cases, "but with only temporary benefit." Yet he thinks that when a proper liquid is found, the proper temperature determined, the rate of injection and the quantity fixed, and when skill has overcome the difficulties attending so delicate a procedure, it may still be capable of saving lives that would otherwise be lost. He used a solution containing three drachms of common salt and one drachm of alcohol to a pint of water, at a temperature of 100° to 115°, injecting two pints; and repeating when the algid symptoms returned. He also used the solution by Dr. Gull which I will give you directly. But here let me remark that it does not seem to me that a complex formula for the preparation of the fluid for injections is at all necessary. The object, of course, is to restore that which has been lost—and that is chiefly water; the evacuations from the bowels and the vomit are composed chiefly, as you will remember, of water, salt, and albumen, or albuminose. Then there is the intestinal epithelium, and nothing else of importance. In the examination of the blood, most analysts, except Dr. O'Shannessy, have reported an increased proportion of saline materials in the fluid which remains in the body. If there is then an increased proportion of saline materials, what the blood really wants is water, and not salts and water. If I were about to attempt an experiment of this sort, I would use either simple distilled water, or water with a very little common salt added.* Dr. Gull's formula is as follows—chloride of sodium, six parts by weight; chloride of potassium, the same quantity; phosphate of soda, three parts; carbonate of soda, twenty parts; of this mixture of salts one hundred and forty grains are to be dissolved in forty ounces of distilled water, and filtered. Filtering is important, because dust gets into all these substances when exposed.

I have here a pamphlet, published in Canada in 1854, containing a report of seven experiments of injecting cow's milk into the veins of persons in a collapsed state. The report is drawn up by Dr. Borell; four of the trials were made by himself. He had two recoveries. A friend, who attempted it in three other cases, failed in each. The experiment was conducted in this way. A cow was brought near to the sick person, and the milk was used of the natural temperature and immediately; the bowl which held the milk was warmed and the syringe was warmed. The amount of milk used was eight to twelve ounces. My impression is, that the quantity of fluid should be considerably increased; it does not correspond at all, in these experiments, with the quantity of fluid usually lost in the dejections; yet the success is two in seven. In the other cases there was some revival of the vital powers, but they sank again; whether they would have been again revived had the injection been repeated, we cannot now decide. The pamphlet is an interesting one, containing the reasonings by which Dr. Borell came to the conclusion that it would be safe to inject milk into the veins.

I return once more to Dr. Johnson, to state to you his views of the treatment of cholera. You will recollect that he regards the evacuations as salutary in eliminating the poison that oppresses and may overwhelm the vital powers. I may here say, that this is not a new opinion. Dr. Johnson does not claim that it is original with him. Many physicians have been led to the same conclusion, some of whom he quotes. Dr. Hutchinson, whose paper I have often referred to, a close observer, has come to the same conclusion. He says: "Whenever a patient was admitted into the Brooklyn Cholera Hospital with copious and frequent vomiting and purging, especially of rice-water fluid, if the discharges were not involuntary, a favorable termination usually occurred, and *vice versa;* and instead of death being the consequence of such symptoms, the conclusion seems more rational that they are curative means adopted by nature to eliminate the poison from the system. Instead, therefore, of arresting the discharges, it was deemed best *to let them stop.*" Dr. Johnson goes beyond this; he is not satisfied to let them stop, but would augment them by mild cathartics, emetics, and enemata. He asks us to admit that calomel, if it cures, acts not as an alterative, or sedative, or cholagogue, but as a cathartic; that the saline mixture of Dr. Stevens is really efficacious, not because it restores the lost salts, but because it is a laxative; and he urges that the English physicians in India treated the disease with more success than the European physicians, because they were not afraid to give cathartics and at the same time call them by their right name. Dr. Johnson, in 1855, reported fifty-four cases of cholera and choleraic diarrhœa treated on this plan.—(*Epidemic Diarrhœa and Cholera, &c.*)

I have examined with some care these cases, and I am compelled to admit that I do not know any detailed reports that give better results. It is not to be forgotten, however, that the cases all occurred between the 11th of August and 28th of September, 1854; in other words, in the decline of the epidemic in London. The seventeen cases of choleraic diarrhœa all recovered; and of thirty-seven cases of cholera, all reported to have been in collapse more or less severe, twenty-three recovered. Many of these cases appear to me to have been mild; some that were considered as in collapse present very few of the symptoms of that state, but the cases numbered 2, 7, 8, and 48 were severe enough to test the virtues of any treatment, and they recovered.

* Dr. A. N. Gunn, late Health Officer of this port, stated in the Academy of Medicine, since these lectures were delivered, that in 1832 injections of saline fluid were unsuccessful in the Hospital to which he was attached as assistant, and had been forbidden; and that afterwards, as he believed, three or four patients were saved by injecting into the veins pure warm water.

The great feature of the treatment is the administration of castor oil in half-ounce doses every half hour for several hours, then the same dose every hour, and later every two or three hours. Thus varied in frequency, these doses are continued usually from one to four days. In one instance recovery followed ounce-doses given every hour till five were taken. In one case (8) of extreme collapse a girl nine years old took fourteen doses of an ounce each between 7 A.M. and 5½ P.M., then after an interval of nine hours she took seven half ounce doses in ten hours; at the end of twenty-four hours half an ounce, and three days later another half-ounce, which last portion seemed to stop a diarrhœa that had continued during convalescence. She took in all eighteen and a half ounces of castor oil. In another case (17) of collapse, the patient took in half-ounce doses twenty-two ounces of the oil during the first day, but vomited nearly all of it; the second day and following night he took seventeen ounces, very little of which was vomited. The purging produced, the author thinks, was hazardous, but the patient revived. One patient (48) took thirty-five ounces of oil in a little more than four days, having vomited during this time 125 times. This quantity of oil, the author thinks, was twice as much as was required. The patient recovered.

I do not discover in the examination of these cases any precise rule relating to the quantity of oil to be given. If it caused vomiting it was still acting as an evacuant, and was not discontinued for that reason. If it did not act in this manner, an emetic was administered in some of the cases. In full collapse Dr. Johnson seems to prefer mustard and salt as an emetic, and gives it before the oil is taken. When the oil does not prove cathartic, he uses salt and water enemata. In some instances he gave calomel with the oil, two to five grains, and if in the smaller doses, it was repeated three or four times. He applies warmth to the stomach and extremities, and uses other adjuvants, but does not speak favorably of ice and cold water, because he thinks they suspend the elimination of the poison. Such is the plan for which Dr. Johnson asks free but unprejudiced criticism. In the present state of our knowledge theoretical criticism goes for very little. The single question is, will this method save more lives than any other? In Dr. Johnson's hands it has done as well at least as any other of which I have seen the detailed reports; but the trial alone can teach us what it can do at the commencement of an epidemic. He does not claim that he has found a specific for cholera He says, indeed in "Notes on Cholera," p. 87: "There is no remedy which has the slightest pretensions to be considered a cure for cholera; no drug or agent which, so far as we know, will neutralize the poison or lessen its virulence. I have not the faintest hope or expectation that a specific remedy for such a disease as cholera will ever be discovered." While I would not discourage the attempts to cure cholera by evacuants, and do not doubt that Dr. Johnson's results are as satisfactory as almost any that have been published, allowance however being made for the stage of the epidemic to which his practice was applied, yet there is a pertinent inquiry regarding the first stage of the disease. How does it happen that agents which restrain the discharges are so efficacious in that stage? It is the almost universal practice to give them, and this of itself is one of the strongest proofs that they are proper and useful. If the poison can be eliminated by emetics and cathartics, it would seem that this is the stage in which they should be most demanded, and in which the agents which suppress discharges would be most harmful. We know but little about the modes in which animal poisons are eliminated; we do not know indeed that they are eliminated at all through the evacuations; we know that some of them, or rather portions of some of them, escape from the body, as in small-pox; but this is not an elimination that purifies the sick man, or relieves him of a single bad symptom. The poisonous principles of typhus and typhoid fevers, of measles and scarlet fever, are not eliminated before the patient begins to recover; for these diseases are communicable during convalescence. The diarrhœa of typhoid fever does not diminish the danger of the patient. Intermittent fever is suspended while the miasmatic poison still remains in the system. There is no evidence whatever that it is in the power of drugs to extract a miasmatic or an animal poison from the body, and so purify it, say what we may of depuration. Still, Dr. Johnson is not to lose the credit of his experiment. Many of his patients recovered while taking castor oil. That fact will stand, whatever its explanation may be.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

INFORMAL MEETING, JULY 5, 1866.

DR. JAMES ANDERSON, President, in the Chair.

THE Academy held an informal meeting on the evening of the 5th of July, there being not a full quorum present.

DR. A. N. BELL of Brooklyn, who had been appointed at the last stated meeting to remark upon disinfection by superheated steam, at the request of the members reported progress and gave a history of the circumstances which first led him to consider that agent a powerful and efficient one. While in the naval service many years ago, the captain of the ship of which he was the medical officer suggested to him the propriety of steaming the vessel for the sake of getting rid of the vermin. This was done, and with such good effect, without any injury to the vessel, that the thought occurred to the Doctor that steam might, by virtue of its destroying powers upon all organisms, be used for the purpose of disinfection. In the instance referred to, no account of the temperature of the steam was taken, but it was nevertheless sufficiently high to re-evaporate the vapor that might otherwise have remained on the walls of the compartments and leave them perfectly dry. Having had charge subsequently of a hospital-ship, he had an opportunity for testing the effects of steam in its power to control yellow fever, and he expressed his belief that it would be equally effectual in arresting the progress of cholera. The question whether steam could be sufficiently heated to destroy every known organism, he maintained was now definitively settled, inasmuch as 284° Fah. had succeeded in decomposing the lowest possible organism. He proposed to apply 300° of heat, which certainly left a margin for contingencies, and he thought that he would be able to promise a certain and complete destruction of every known organism. This immense heat, he contended, did no other harm than blistering the paint or melting the turpentine in the wood, the moisture being entirely re-evaporated by the high temperature. He then recited some experiments which he had made at the instance of the Health Officer, Dr. Swinburne, at Seguin's Point. By throwing superheated steam into a room, he raised the temperature up to 280° Fahr., as proved by a self-registering thermometer, and at the end of five minutes the doors were opened, and everything was found perfectly dry, while some eggs and

oysters which were contained in the apartment were cooked. In another similar experiment of ten minutes' duration, the only change that was noticed was in the moistened state of the temperature in the pine boards. He thought it necessary that the temperature should be preserved continuously for two hours in order to have its full and desired effect. He stated, in conclusion, that he had placed at his disposal by the Health Board one of the metropolitan fire-engines, with which he proposed to give some public exhibitions as to the utility of superheated steam as a disinfectant to such as might be interested. He did not desire that these few desultory remarks should be taken as a formal report, but promised at a future time to present his conclusions in full to the Academy, when the various experiments which he intended making should be completed.

A DISINFECTING CHAMBER-PAIL.

The PRESIDENT then exhibited Rankin's Disinfecting Chamber-Pail. The pail is an ordinary one, but has applied to the under part of its cover an apparatus by means of which disinfecting materials can be made to fall on the stools. The cover is hollow; its lower platform is supplied with triangular openings, the apexes of which point towards the centre. Upon this platform there is another one of the same size with like openings. By means of a spring attached to a knob passing through the top of the cover, the lower platform of the cover is kept closed by the upper one. When the stool has been passed and the lid closed, this knob is turned, and the openings of the two lower platforms correspond, and the powder or other disinfecting material falls into the vessel, when by letting go the handle the reservoir containing the disinfectant is shut.

DR. GRISCOM remarked that this was a very excellent apparatus, and would serve the double purpose of not only disinfecting the dejections, but would help to purify the sewers.

The question as to which was the best and cheapest disinfectant then came up, when Dr. Harris stated that sulphate of iron as a powder ranked first, and the refuse of coal tar as a fluid took the second place. Both were very cheap, but the former would probably be the most popular.

DR. HAMILTON remarked that Rankin's apparatus could not very well be applied to the water-closet. The apparatus was only intended for powdered disinfectants, and if adapted to the water-closet, these powders would become more or less moistened by the splashing of the water from the basin below, and would corrode the vessel which contained them. He thought an improvement might be made upon the apparatus by having it adapted for fluids.

The PRESIDENT then stated that such improvement could easily be made by having a pipe containing the disinfectant so connected with the one leading the water into the basin, as that both could be acted on at once by pulling up the knob in the seat.

DR. HARRIS remarked that it was very necessary not only to have a disinfecting apparatus connected with every privy and water-closet, but it was equally necessary to have some arrangement contrived whereby the apparatus would be self-acting. This was particularly desirable in all public water-closets. If some such arrangement had been made, he thought that the cholera in Elizabethport, N. J., might have been probably prevented from spreading even as far as it did. He then gave an account of the epidemic as it prevailed at that place:

A short distance from Elizabeth City is Elizabethport. The Germans from the latter place are in the constant habit of wandering up through Elizabeth City, some to take transportation by railway, and others to tarry in the city. About three-quarters of a mile from Elizabethport there is a street called Schuler street, which is occupied almost entirely by Germans; only one rookery being occupied by the Irish. In that street a number of German families tarried, some of whom had been on board of cholera ships. These facts were stated to their friends. About five days after a man with diarrhœa had left with his family, the people in the neighborhood began to suffer from cholera. The first case, a man with a large family, was traced to the patient who had diarrhœa as the cause, the former having been, it is said, in the habit of using the same privy as was used by the latter. This first case of cholera was attended by a devoted daughter, who was the next victim to the disease. The soiled clothing of the father was found in the room, and some of the furniture had seemingly been spattered by it. The evacuations, such as could be collected, were removed to the privy, without, however, being previously disinfected. The little girl was attacked the morning after the father's death. The former survived eighteen hours after the first onset of the disease, while the girl died nine hours after. Seven other cases died in the same house, all being in the habit of using the same privy.

The mayor of Elizabeth hearing of the epidemic, and being a physician, determined to stay its progress by destroying the albuminous fluids wherever found. This he did at the cost of $3,000, which was afterwards refunded to him by the City Council, who approved of the means adopted.

The first case occurred on Monday morning, and the last terminated by Saturday night. Notwithstanding that the inhabitants were in a fit condition to invite the epidemic, and were in fact only waiting for its fearful ravages without attempting to guard against it, yet by the simple means adopted by the mayor, the epidemic ceased at once.

DR. HAMILTON favored the reference of Rankin's apparatus to a Committee for the purpose of making some improvement in its construction in accordance with the suggestions made.

DR. GRISCOM thought that the chamber part was perfect in itself, but was of the opinion that a separate contrivance might be more serviceable for the water-closet.

DR. RICHARDS suggested that the people might be instructed to introduce their disinfectants into the tank above the water-closet, whence it would descend in solutions directly into the basin below.

A Committee, consisting of Drs. Griscom, Hamilton, Post, and Harris, were appointed in accordance with the previous request.

The meeting then adjourned for the season.

THE CATTLE PLAGUE IN IRELAND has abated in the north, but has appeared in the south, particularly in the county of Wexford. An order in Council issued in Dublin stops all fairs, sales of cattle, etc., in certain baronies of Down and Antrim, but allows the sale of cattle for immediate slaughter, except within the actually infected district. A dispatch from Dublin says that confidence has been greatly restored in Ireland by the promptness of government, and it is now hoped the plague will not extend. A cordon has been drawn round the infectant district.

MEDICAL OFFICERS OF THE FREEDMEN'S BUREAU in Tennessee, are hereafter to be appointed by the State instead of by the General Government.

Progress of Medical Science.

Professor Arlt on Gräfe's new Method for the Extraction of Cataract.—At a meeting of the *Imperial and Royal Society of Physicians in Vienna*, held April 27, 1866, Professor Arlt spoke as follows: We could make the objection to the flap operation, which has given extraordinary results, that even when the operation was performed with extreme accuracy, here and there an eye was unexpectedly lost. This often happened through an unfavorable condition due to the patient; in other words, the cause of the bad result lay in the constitution of the one operated upon, and chiefly in the fact that the wound healed badly. Of less consequence are the cases in which the operation does badly on account of one or the other mistake in the operation itself. The difficulty in the remaining behind of parts of the lens, has been, as far as possible, obviated, and their removal is no more undertaken by means of the spoon, but they are pressed out by stroking the eyelid.

In many cases the blame of the bad healing of the wound was ascribed to the flap section. As to this, confirmatory examinations have been carried on by Gräfe for a number of years. He attempted first to separate a class of cases, in which he did the simple linear extraction, and these were the cases in which the cataract was soft or fluid. The operation consisted in this, that with a pupil as widely as possible dilated, an incision was made with an angular lance-shaped knife, of a length of from 2½ to 3 lines; and then entering the wound with a small hook or a needle, the capsule was opened. Pressure was exerted while the opening was made a gaping one, and thus the lens pressed out. The results were, however, not so favorable as had at first been expected. Parts or remains of the lens often remained behind on the periphery, the pupil contracted, the iris prolapsed, and we were obliged to cut it off.

Professor Arlt then said he must make a little digression as to iridectomy. This was, first of all, a method practised in the Vienna school; it was, however, practised by Von Gräfe with entirely another purpose than by us, namely, in order to limit the advance of the chronic inflammation of the iris and choroid, and to cause the inflammatory process to recede. A change in the operation was found to be necessary, so that we were not satisfied with making an opening in the iris, but great weight was laid upon the attempt to cut out the iris broadly from the pupillary to the ciliary border, in order to obtain a wide opening. In 1857 Gräfe conceived the idea of doing iridectomy in glaucoma. The expectations which this operation excited were realized in a brilliant manner; thousands of eyes since then have been saved, which otherwise would have been lost. This method of treatment stands in substantial relation to further progress in respect to the extraction of cataract. In 1859 Gräfe published an article on linear extraction combined with iridectomy. He used as before a lance-shaped knife, only the incision was not made in the middle of the cornea, but on its border, and generally on the temporal side. The iris was then cut out as far back as its periphery, the capsule opened, and the lens brought out by pressure. By this method we could extract every cataract which was not fluid, but which had a hard nucleus. A spoon was employed in this method, which was different from Daviel's, in that it was broader and somewhat turned up. Gräfe confined this method to cataracts with a soft lens substance. Dr. *Waldau*, his assistant, went a step further. He constructed a peculiar spoon of his own, to bring out the lens, and asserted that in future the flap extraction could be entirely avoided if such a spoon were introduced behind the lens. The incision was made quite peripherical, the iris excised, the anterior capsule slit open, and then the spoon was introduced on the cortical substance, and the lens in this manner drawn out. Dr. Arlt said he never had had any faith in this method, because we have not a sufficiently large wound in order to draw out the lens; and, added to this objection, a spoon must be introduced which has quite prominent edges. This method was soon given up. The proposal of *Mooren* in Düsseldorf, which really proceeds from Gräfe's proposition, to make an iridectomy six weeks before making the flap section, obtained no favor, since it is not pleasant to operate twice on a patient, allowing him to wait so long between the operations. But this method has been partially accepted, in uniting iridectomy with the flap section. But in this method also we often have closure of the pupil, and occasionally we lose an eye. Jacobson, in Königsberg, has proposed the flap extraction combined with iridectomy, performed with the patient under chloroform, and in a hundred and some cases has only lost one eye.

Dr. Arlt had not fully agreed to this method of procedure, because in general he was not willing to anæsthetize a patient, when it is not quite necessary. He had never found in the disquiet of the patient any hindrance.

He allowed the patient to lie down during the operation; and then all morbid tension on the part of the patient disappears, the lids are held simply with the fingers, and the operator secures himself against the movement of the globe by forceps, with which the conjunctiva is seized a little way from the cornea.

The methods of Gräfe and Waldau were not much modified by Crichett (of London). He took an angular lance-shaped knife, used an elevator to hold the lids open, and then the knife is thrust into the border of the cornea, and an incision of three to four lines long made, which could be widened on each side by a pair of curved scissors. Then he cuts out a piece of the iris, opens the anterior capsule as far as the equator, and introduces his spoon, which differs from that of Daviel, in that it has no edges, but a slightly convex surface, which projects anteriorly. Arlt had done this operation three times, but returned more willingly to Beer's flap extraction. Often much of the lens substance remains behind; we may burst open the posterior capsule before we have the remains of the lens all out; these latter left behind, may get into the vitreous humor and cause a reaction from this. Thus stood matters in 1864. Gräfe proceeded from the view that the most eyes were lost by the bad healing of the corneal wounds. The flap extraction had the advantage that the lens could be easily brought out, even without any contusion of the pupil, because the wound corresponds fully to the diameter of the body which is to come out; but just here there is a disadvantage in reference to the healing, since the wound readily opens. Gräfe proposed, therefore, to make a purely linear incision. He makes this with a knife, which is about one line broad, on the upper border of the cornea, carries it through posteriorly, makes the counter puncture at a sufficient distance, and turns the knife, so that its back is directed towards the imaginary middle point of the cornea. The incision is ended by the withdrawal of the knife. This operation is done while the patient lies in bed, and the lids have been kept open by an elevator. The section is within the limits of the cornea or the *limbus conjunctivalis*. If hæmorrhage occurs, this should be checked. After this the operator, having fastened the globe, enters the eye with the forceps, seizes the iris, which sometimes prolapses of itself, and this is cut off by an assistant. Then

the capsule is opened up to the equator; and then with the globe still fixed a spoon-shaped instrument is laid on (angesetzt) it, pressure exerted, and the lens in this way comes out without being bruised. This is the method as Gräfe now recommends it. Formerly he advised, besides, to go behind the lens with a little bent hook, and to draw it out. This is, however, a somewhat hazardous procedure. Later he recommended for the withdrawel of the lens a spoon, but this had very sharp edges, and could easily scratch the lens. In the report which he gave in the fall of 1865, it appeared that he had operated on sixty-nine cases, in which he had not lost a single eye, and only seven ended with imperfect result. Arlt could not, however, decide as yet to operate by this method. On the 9th of March, 1866, Gräfe wrote to Arlt, that he could now, after having operated on 200 cases, say positively that he would never again do a flap extraction. Arlt promised towards the end of the session to refer further to the results of this operation, which he now practised a great deal. Only this much could he now say, that this method promises to accomplish all that Gräfe declares for it. Prof. Arlt demonstrated the method on two eyes, which he had brought with him.—*Wiener Medizinische Presse, May* 6th, 1866.

Dr. Williams, of Boston, has applied sutures to the corneal wound, after flap extraction, by means of very minute needles, for the purpose of assisting the healing, which Gräfe declares a great obstacle to the success of this operation. Thus far the procedure has been attended with gratifying success.

Capsicum in Delirium Tremens.—Dr. Lyons (*Dublin Medical Press and Circular*) has been employing with success capsicum in delirium tremens. He urges the importance of recognising the early stages of the disease in order that the remedy may then be administered. He observes that a brief but variable period often precedes the fully developed attack of delirium tremens, especially in first cases, in which the patient presents anomalous symptoms unintelligible to himself, and not always read aright by his attendant. This stage is in some patients marked by the occurrence of tremor, sleeplessness, and general distress and anxiety, without a trace of delirium. In other instances slight illusions prevail, without tremor, from which the patient can by an effort arouse himself, and under strong self-directed exertion of the will even command his faculties for a time, and pursue avocations of business, to break down, it may be hopelessly, a few hours subsequently, if his condition is neglected, misunderstood, or mistreated. He further remarks that under these circumstances the treatment by capsicum comes in very opportunely, and by its employment the disease may be cut short, and so save the patient from the consequences of his imprudence, and possibly restore him to a reformed life. He has found that a single dose of 20 grains in a bolus is usually sufficient, although in some individuals of extremely intemperate habits it was found necessary to repeat the dose some three or four times. This remedy has been of service when opium has failed, in procuring the patient a profound and refreshing sleep for ten or twelve hours at a time. Dr. Lyons's explanation of the physiological action of the remedy is that it produces a powerful stimulant and sedative influence by its direct action on the gastric filaments of the vagi.

Chlorate of Quinia.—This newly discovered salt, which the profession owes to Dr. Lyons, continues to be employed in his clinique and in his private practice with good results. Its use is indicated in cases of scarlatina, typhus fever in low pyrexial states, local inflammations, etc. Its good effects may be traced to the large amount of available oxygen which it contains, and the valuable tonic alkaloid which forms the base of the salt. Dr. L. suggests that it will doubtless prove of great value in gangrenous stomatitis.—*Dublin Medical Press and Circular.*

Report on Spurious Vaccination.—Dr. S. E. Habersham, late surgeon in the Provisional Army of the Confederate States. in a very interesting communication to the Southern Medical and Surgical Journal, comes to the following very sensible conclusions in reference to the nature of spurious vaccination—"That the disease is pustular at its first appearance; that it resembles ecthyma in its general character; that it is but a local manifestation of a general disorder, or vitiated condition of the blood; that this vitiated condition resulted from improper and spare diet, together with inattention to cleanliness, thus impairing the eliminating functions of the skin; that syphilitic virus has had no influence in producing the disease; that the morbid effects have in most of the cases resulted from a deficiency in condition independent of any imperfection in the vaccine virus; that the disease can only be removed by those means calculated to improve the general condition and restore the healthy play of all the functions."

Necrosis of Lower Jaw produced by the Oil of Tobacco in the Hollow of a Decayed Tooth.—A case has recently occurred to Mr. Paget (Lancet) in which death of a portion of the bone of the lower jaw was occasioned by the introduction of the oil of tobacco into the cavity of a carious tooth, for the purpose of curing the toothache. The patient was an Italian sailor who used the oil from the stem of his pipe. Mr. Paget, in remarking upon the case after having removed several sequestra, said:—"The case well illustrates a source of danger which is not generally recognised. The practice of smoking is very widely spread, and foul pipes and carious teeth are very common. Every smoker of a pipe has been disgusted now and then by sucking into his mouth a few drops of the highly pungent and nauseous product of the combustion of tobacco. In the action of smoking the tip of the tongue ordinarily receives this deleterious fluid, and is very much blistered in consequence. Were it not for the tongue one can readily imagine that hollow teeth would often receive this fluid; with what amount of risk the case before us well shows. It is well known that, for phosphorus to excite the inflammatory action which so often affects the lucifer-match workers, the fumes must be applied to a raw vascular surface in immediate connexion with the nutrition of bone. This almost always happens through the medium of a carious tooth. There is no reason to suppose that tobacco oil would set up inflammation except under similar circumstances. It is, however, very probable that some cases of acute necrosis of the lower jaw of obscure origin may have really originated from the accidental poisoning of the tooth-pulp by this liquid, and the possibility of this source of disease should be borne in mind."

Preservation of Meat.—A preparation of paraffin devoid of smell and taste has been made, which, it is said, will preserve meat for an indefinite time.—*Dublin Medical Press and Circular.*

Theine Dye.—A new dye, which promises to be of much commercial value, has just been procured from theine, the principle of tea. If theine were only procurable from tea, the new discovery would not be of much importance, but inasmuch as the principle exists largely in other plants, it will prove of considerable importance.

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CLINICAL INSTRUCTION.

THE high rank which clinical education now holds in the regular medical course is so well conceded, that there is hardly a medical college in the country that omits to state in its announcement that this branch of teaching will be well attended to. There is, in fact, nothing connected with medical education concerning which a more uniform opinion is held than the importance of combining clinical and didactic teaching. The manner, however, in which such instruction is now carried on, even in connexion with our large metropolitan schools, is not by any means what it should be. There is evident in this branch that same want of systematic arrangement that we have noticed in the other departments of study.

In the first place, the study is not an acknowledged part of the education in our colleges; it is merely optional with the student whether he will avail himself of such means as may be thrown in his way or not, the presumption being on the part of the professors that he will not allow golden opportunities to slip by unheeded. That this is an altogether erroneous view must even be admitted by the teachers themselves, when they notice the small number in attendance upon the clinics, and the still smaller proportion who frequent the wards of the hospital.

Students in this country are notoriously wanting in the clinical appreciation of disease; and we have only ourselves to blame when we are called upon to receive the criticisms of our more prudent and exacting brethren on the other side of the water. We cannot excuse ourselves on the score of deficiency in clinical advantages, for as a whole this country, with her vast medical resources, will compare favorably with any other. Our hospitals are large and well appointed, our surgery in the main is very much better than theirs, and our diseases are, for variety, to say the least, remarkable.

For all that, our students are graduated by scores and hundreds from our colleges without having at all appreciated the important difference which exists between the theory and practice of their art.

The professors are in no small degree responsible for this, by the apparent unconcern they themselves exhibit in reference to the enforcement of certain regulations for bedside study, which shall apply to all those under their charge. Hospital instruction should be as much a part of the course of every student of medicine as any other of the acknowledged branches, and his skill in the observation of disease should be as thoroughly tested by appropriate and stated examinations at the bedside as by any similar tests in the lecture-room.

So-called "classes in diagnosis" have been formed privately by several of our most skilful teachers in the different branches of medicine, and their success has been gratifying enough to have their plans adopted on a larger scale. The great objection to this system has been that the class of a medical college would be too large to question each individual and give him an opportunity for making his own diagnosis in a given case. But this objection could be overcome with ease by dividing up any medical class into sections that should have stated days for meeting. If on any particular day an important or rare operation is to be performed, or a unique case exhibited, it would be easy to give a general invitation to all who might wish to witness it.

The arrangement between most of our medical colleges and hospitals is such, that a sufficient complement of the professors of each of the former are members of the attending staff of the latter, each teacher being thus enabled, if so disposed, to take care of his own class in his own branch. Students need not confine themselves to one particular teacher, but they could, during those intervals of time which take place between the meetings of their respective sections, enjoy the instruction of others of the attending staff who may or may not be connected with a college.

The student should be compelled to attend the hospital regularly, otherwise he will be apt to neglect it for studies which he at the time may believe to be more important. The way, in our opinion, to make it compulsory, and consequently beneficial, is to exact the attendance of every third-course student, and insist upon his being a member of one of each of the sections of medicine and surgery. As for the first and second-course student, attendance might be a matter of choice, so long as it did not interfere with his other studies.

The practice of allowing third-course students to attend obstetric cases is one which cannot be too highly commended; and it is to be hoped that many of our colleges that have not already done so, will follow the good example set them by the senior institutions. We are however sorry to see that it is not more universal, and that even this is left to the choice of the student as to whether he will attend such cases or not.

The poly-clinics are of great value in illustrating the different lectures of the professors, and we are glad to

see that they are now so much a recognised part of the college curriculum, that regular days in the week are set apart for them. The introduction of the practical study of special branches in connexion with these clinics is a very important advance, and one which, under proper regulations and restrictions, must be of great benefit to the student and the institution. Excellent as most of these clinics are, they could be much more beneficial to the student if "diagnosis classes" were formed in connexion with them, such classes being made up entirely of third-course students.

The time has come when more attention must be paid to a thorough and systematic clinical course of instruction; it is what the student specially needs, and what the profession will demand of those who occupy professorial chairs or hospital appointments. We think ourselves warranted in saying in this connexion that those medical schools that will undertake to make this study absolutely compulsory, will not only gain increased patronage, but will add more value to their diplomas.

THE remarks of Prof POST upon the subject of Quarantine, made in our last issue, call from us a somewhat further explanation of our views as expressed in the editorial referred to by him.

In our number of May 15th, in commenting on the action of the "American Medical Association," in regard to quarantine and cholera, we expressed our regret as well as surprise at the course pursued by those gentlemen who voted to lay the whole subject on the table, and thus give the matter the go-by, when the whole country, and Congress especially, were anxiously looking to the convention, composed as it was of the ablest members of the profession from all parts of the United States, for some expression of opinion on the subject. It was, we thought, not a manly course for such a body to take under the circumstances, and on this point we have seen no occasion to change our opinion. Further reflection satisfies us, however, that the question of *contagion*, or *non-contagion*, was not fairly tested, and that no valid conclusion can be drawn from the final vote, in regard to the opinions of the members on these points. A vote to lay on the table can hardly be considered as testing the true merits of any question. In the present case, as is well known, a variety of other considerations had more or less influence.

We therefore, perhaps, went too far in considering those who voted in the affirmative as non-contagionists, for we have since ascertained that many of them were not so. There can be no question, we think, that nine-tenths of those who composed the convention believed in the portability of cholera by *persons and their effects*—in other words, in its *infectious character;* and if time had been given for a fair and full discussion, there can be no doubt that an immense majority of the members would have voted to petition Congress to establish a general and uniform system of quarantine at all our ports. This, we think, is obvious from the fact that nearly all to whom the paper was presented the next day on board the boat to Annapolis, requesting a meeting in Baltimore that evening for this very object, signed the call. So far, therefore, as we may seem to have reflected on the motives of those who voted to lay the matter on the table, we are ready to admit we may have done them injustice; while at the same time we must continue to regret that such an abortive effort crowned the closing efforts of the convention.

Reports of Hospitals.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. J. M. DA COSTA.

[From our own Reporter.]

ACUTE BRIGHT'S DISEASE—URÆMIA SUPERVENING—DEATH—AUTOPSY.

APRIL 18, 1866.

THE patient, Arthur D——n, æt. 26, was admitted on the evening of the 16th, less than two days previously, and being too ill to be brought into the amphitheatre, the examination of the case was made before the class, at the bedside of the partially unconscious patient.

His mind had been so dull since his admission that it was with very great difficulty a history of his previous condition could be gathered. Four weeks ago, it seems, he attended a fire, from which he returned very wet, and slept in his clothes. He got up with a pain in his back, in the region of the kidneys, which pain lasted four days, during which time he passed less urine than usual. Afterwards he felt well again, and noticed nothing abnormal until two days before his admission, when there came on a sudden swelling of the abdomen and an increased secretion of urine, unaccompanied by marked fever, swelling of the feet, or any other symptom of dropsy. Since three days his feet are swollen, and he sought admission on account of the dropsy.

Shortly after admission his urine was found to contain a considerable quantity of blood. But examined subsequently under the microscope twice, no blood globules were discovered, and but one cast. The urine was very highly colored. There was a considerable amount of albumen, one-half of a test tube remaining full of the coagulated albumen after the application of the usual tests of heat and nitric acid.

Leaving out the history of the case, which is not very satisfactory, the symptoms indicate the case to be one of *acute Bright's disease.*

Since an early hour this morning (18th inst.) the man has been in a dull, stupid condition; he breathes noisily, respiration being at times quite stertorous; he is almost unconscious; the pupils are dilated, and do not react readily.

Percussion over the anterior portion of the chest is clear; posteriorly he cannot be examined on account of his position in bed, except at the posterior portion of the right lung, where the resonance on percussion is somewhat impaired.

Respiration is vesicular, though feeble; but as the breathing is very irregular, much stress cannot be laid upon this impairment. The number of respirations is twenty to the minute. These results, as far as they go, would show nothing abnormal about the lungs.

The heart gives a faint systolic murmur at the base, but otherwise presents nothing abnormal, if we except that the first sound at the apex is unusually dull, and apparently much more so over the left than over the right ventricle.

There is considerable distension of the abdomen, yet this is far from being all due to ascites, for there is a great deal of flatulence with it. The fluctuation is very much obscured, being only slight and over the lower portion of the abdomen, and is obscured for the most part by the collection of air within the bowels.

It is impossible to ascertain the amount of pain over the kidneys, since the patient's stupor and restlessness are such that his statements would not be reliable. Until three o'clock yesterday afternoon he had passed water freely. Since that time it has had to be drawn off with the catheter, but it has not diminished in quantity, and is very much discolored.

The lower limbs are only slightly œdematous, pitting somewhat on pressure along the legs, but not on the thighs. There is no œdema of the hands. There is a visible fulness of the veins of the neck, with distinct pulsation there, more perceptible on the right side than on the left. The pulse is 96, and rather full. The breath does not discolor a slide on which muriatic acid has been placed.

The patient had taken some medicine before entering the hospital, and the bowels were freely opened three or four times yesterday, since which time they have not been moved.

He has had some sickness of the stomach, having vomited once yesterday morning and twice yesterday afternoon. The patient obstinately clinching his teeth, makes it difficult to examine his tongue. The skin is hot, inclined to be moist in parts, but not sweaty. An attempt to look at the tongue produced a struggle eventuating in the production of epistaxis, and the tongue was found slightly covered with a yellowish coat, except at the tip and edges, where it was clean. The reflex movements are good, as evinced by tickling the soles of the feet; but though sensibility exists, it is somewhat impaired. There is no paralysis of motion; great stupor and restlessness being the most marked cerebral symptoms.

The history of the case shows an acute attack coming on after exposure, attended with frequent micturition; that condition beginning to disappear, swelling of the feet setting in three or four days ago with ascites, and without marked swelling of the face. This attack apparently did not give rise to any very great disturbance. The man was brought to the hospital in a carriage; felt very weak; complained of oppression in breathing without suffering pain; and his mind, though dull, was sufficiently clear to have given the resident physicians all the information about his condition. In this state he remained until after midnight, when the present symptoms developed themselves. Yesterday afternoon and last evening Dover's powder was given by the resident, for diaphoretic purposes; otherwise his treatment consisted in nourishment and a very small amount of stimulus—milk punch, without any local treatment.

Examined this morning, we find this rapidly developed coma; dilated sluggish pupils; sickness at stomach; retention of urine; vomiting; preserved motor power; slightly modified sensibility; active reflex movements; noisy, irregular breathing; absence of any pulmonary symptoms; and the effect of a disturbed action of the heart, as manifested by a slight systolic murmur.

This, then, is a typical case of *acute Bright's disease*, commencing with a clear history of cold after exposure, attended with fever, prostration, accompanied by some pain in the back, and by albuminous urine of rather high (1020) specific gravity. Now everything has changed. Is this the result of acute Bright's disease? Is this the ordinary progress of such a case? By no means. An accident has happened to this patient to which every case of Bright's disease, acute or chronic, is always liable, and which may prove fatal, as will most likely be the result in the case under consideration. This accident is the *supervention of poisoning by retained urea*. This is a case of uræmia. It is not quite hopeless. Cases of uræmic poisoning do recover; but taking the history of the present case, we can but view it in a gloomy light, and the prognosis is doubtful and unfavorable. Coma is very marked, with dilated sluggish pupils; there is vomiting, without any special reason for that vomiting. Coma rapidly developed, not following any fever, not occurring in the course of any disease where there may be reason to expect such a condition, is always a very grave indication, and in the majority of instances points to the kidneys as the seat of disease. Indeed you would never be doing your patient justice, unless in every case of rapidly developed coma, an examination of the urine be made, to see if the condition be not dependent upon a disease of the kidneys.

The pupils are sluggish and dilated. So much importance would not be attached to this point were it not for something which had preceded it in the treatment of the case. The resident, finding the patient restless, noticing that the skin was dry, thought a diaphoretic would be of advantage, and in the interval of the visits administered Dover's powder. Are not these symptoms, therefore, the result of the administration of opium? the more, that in all cases of Bright's disease there is a peculiar susceptibility to the effects of opium. Might not the sickness at the stomach, too, be due to the ipecacuanha taken? We do not answer in the affirmative. The state of the pupil is not that which would follow the exhibition of opium, for it would then be contracted; and the sickness at stomach and vomiting were more marked before the administration of the Dover's powder.

Not long ago Dr. Da Costa had in charge a case of abscess of the kidney, which during life was watched with a great deal of interest. Sudden vomiting set in, accompanied by some disturbances of respiration. After watching the case for a day, he made up his mind that it was a case of uræmia. The sequel proved that this view had been correct. The man died of marked uræmic poisoning. Vomiting occurring without any obvious cause, and often joined with a clean tongue, where there is no reason to suspect gastric disturbance, ought in every case to direct attention to the kidney, for it is often a sign of uræmic disturbance.

In cases of uræmia, such as this, accompanying Bright's disease, there may be retention of urine—there may be suppression of urine. The common belief is, that when you have these grave nervous symptoms arising, there must be necessarily no urine voided. This is true in many cases. Often you will find the amount sensibly diminished, and then the dulness of mind, coma, and other symptoms arise. But it is not always the case. In a practical point of view, you will sometimes find apparently the quantity of urine continues the same, but a close chemical analysis will show a very different state of things. Some ingredients will be notably diminished; urea absent in the urine, and the amount of albumen sensibly diminished, as it is remarkably so in the present case. The specific gravity of the urine drawn from this man this morning is only 1014, whereas yesterday it was 1020 before the uræmic

symptoms occurred, showing a larger amount of solids in the urine.

Thus the mere quantity of urine is no proof against the non-occurrence of uræmic poisoning, or that the urinary constituents are not retained; for the most important may be retained, and yet the amount of water be the same. Here we have the urea retained in the blood, with possibly the tubes clogged with albumen, and perhaps not allowing all the albumen to pass through; and retained in the system, the urea acts as a poison on the nervous system. Physiologists are at variance as to how it acts. Some maintain that it acts only by virtue of its decomposition; it is converted in the blood into carbonate of ammonia, and the patient is in reality poisoned by ammonia circulating in the blood. This is the opinion of *Frerichs*, who has done much to investigate this subject. In proof of this view he adduces the fact that often, if you will take a glass slide dipped in muriatic acid and place it before the mouth of the patient, it will become coated with a white deposit, which are crystals of the chloride of ammonium or muriate of ammonia. In the present case this experiment was negative—there was no chemical reaction. Other physiologists inject urea into the blood of dogs, and find poisonous results follow, where there could have been no reasonable supposition of decomposition. Thus partly on clinical grounds (which this case favors), partly in accordance with the physiological experiments on animals, we must admit that the opinion of Frerichs, that the urea must undergo decomposition, is too absolutely stated. It may occur in some cases, but it is not necessary for the production of uræmic symptoms.

What can we do for our patient to bring about again a healthy state of blood, lessen the coma, and cause the kidneys to secrete again as they should secrete? In the first place, derivatives are of immense advantage. In this connexion Dr. Da Costa recalls a distressing case of repeated uræmic poisoning attending Bright's disease, in which there were six or eight distinct attacks of uræmia intercurrent with the Bright's disease. The most marked amelioration was produced by free purgation; dulness, vomiting, dilatation of pupils, would often cease as a free action from the bowels was obtained. Hence, in every case, resort to purgation. An attempt was made to give the present patient two drachms of the compound jalap powder, but he could not swallow it, and it could not be introduced between his clenched teeth. Two drachms of the tincture of jalap were administered by injection, but had not yet operated. He will be given a large enema of castor oil with vinegar, mixed up with gum or egg, into an emulsion with warm water, so as to produce a free purgative action. Vinegar in the treatment of tympanites, as in typhoid fever and other diseases, has been found to yield speedy and highly beneficial results. Turpentine would be inadmissible on account of the state of the kidney. We want to act on the blood, to keep the urea in such condition that it will not be decomposed; we shall therefore, without even fully accepting Frerichs' views, endeavor to keep it from decomposing, because we know that such decomposition is possible, or counteract this decomposition should it have taken place. Therefore we must act on the blood and act on the kidneys. To act on the blood, the mineral acids will be found very valuable, and sulphuric acid is found of signal use in uræmia; so also are muriatic acid and nitro-muriatic acid; but Dr. Da Costa prefers benzoic acid, which, moreover, will have the advantage of being a diuretic to remove the clogging of the tubes with albumen, which is probably the mechanical cause of all the disturbance causing the urea to be retained. He would order the following mixture:—Benzoic acid, grs. xv.; biborate of soda, grs. x.; sweet spirits of nitre, f 3 j; simple syrup, f 3 j. If the stomach should not bear this mixture, the amount of benzoic acid will be diminished. A dessert-spoonful of this mixture is to be given in water every second hour, for the present. Benzoic acid is a diuretic, causing, moreover, as we well know from experiment, an excretion of urea—just what is wanted in these cases; it is an acid to a certain extent, which is also required; the borax is given for pharmaceutical purposes, because it causes the benzoic acid to be much more soluble.

Nitre is a diuretic, and acts, moreover, decidedly on the skin, and this can be favored by applying heat around the man; bathing him frequently with hot vinegar and water, to obtain free action from the skin. And acting on the skin and bowels, will relieve the kidney to some extent, and cause the urea to be thrown out elsewhere. Should the patient convalesce sufficiently to ask for drink, he will be given a lemonade.

The history of this instructive case, subsequent to the clinical remarks reported above, is substantially as follows:—In addition to the above treatment he was ordered to be wet cupped over the kidneys, to the amount of four ounces of blood, and then dry cups were applied over kidneys and back of neck.

Morning of the 19th.—Breathing less sonorous; pupils still dilated; continues very restless, especially when disturbed; pulse 82, and less full than yesterday, but of good volume; belly remains tympanitic; no urine has been discharged since 11 P.M. of 18th; at 9 A.M. a few ounces of urine were drawn off by catheter, the patient struggling so violently as to require his being held by several attendants. The veins are still much distended. The patient had not taken all the medicine ordered yesterday, his teeth being so firmly clenched as to render it requisite to separate them by the levers of a strong forceps constructed for the purpose; and then as he spit out all that was forced into his mouth, the stomach tube was introduced, which produced vomiting; and as soon as this subsided, about three tablespoonfuls of the mixture containing acid. benzoici, grs. xv.; sodæ biboratis, grs. x.; and spts. æth. nitrici, f 3 j. to the f ℥ j. were thrown into the stomach, but were instantly rejected by vomiting, so that but a small portion could have remained in the stomach. After this the medicine was administered occasionally at periods when he would be found breathing with the mouth open, so that he probably retained in the system thirty grains of about ninety grains of benzoic acid that were administered. Frequent vomiting prevented the administration of much nourishment. A hot vapor bath had been applied the day before, requiring several persons to hold him in bed at the time. The bath produced profuse perspiration, but only for a very short time. The first stool since the several injections was passed this morning, and was of a light clayish color. The sponging yesterday with hot water and vinegar was repeated three times, but without any appreciable effect. He was ordered to-day four ozs. beef essence, with one egg, by injection, every two hours; blood to the amount of six ozs. to be taken by cups from the back of the neck; the sponging with hot water and vinegar to be continued.

20th.—Restlessness more intense than ever; has had no stimulus since day after admission; skin dryish, does not exhale any peculiar odor; pulse 120, compressible, and smaller than yesterday; breathing less noisy and more through the mouth, though still a rather high-pitched stertor. No passage from bowels since yesterday morning; has passed no urine since 11 P.M. yesterday, when about three ounces were drawn off by the catheter. Although the legs permit flexion, the pa-

tient generally lies with them extended, and the gastrocnemii contracted. Muscular movements have a spasmodic character without any distinct convulsion; the lips and teeth are covered with sordes; tongue dry and damp. The arms, when raised, do not fall upon the bed, but come down slowly and gradually: does not respond in movement to poking with the finger as much as yesterday; remains perfectly unconscious, with pupils dilated and insensible to light. Injections of vinegar and water to relieve flatus were given, but came away directly, as also did the enemas of beef-tea and egg. A small quantity of nourishment and medicine was given by mouth, and retained.

In the afternoon there were three passages from the bowels, thin, yellowish, and small in quantity. Urine was drawn off this morning, still less in quantity, lighter colored, and of a lower specific gravity; acid reaction albuminous, but less so in quantity than heretofore. The treatment was continued, and the medicine and nourishment were administered as well as could be at short intervals. At 11 P.M. urine drawn off by catheter, not more than two ounces; the bladder as before, firmly contracted.

21st.—Patient died at 12·30 P.M. During the last twelve hours of life he took at least twenty ounces of beef essence, and eight ounces of the mixture containing 240 grains of benzoic acid and two ounces of sweet spirits of nitre. During this time he did not vomit at all, and had two alvine evacuations. His skin was dry and rather hot, except immediately after the vapor bath, when there was a slight tendency to perspiration. The tongue remained covered with a black coat. The restlessness became less marked, though quite as marked when the patient was touched.

During the whole period of his unconsciousness the chief muscular movements were raising the arms up over the head, tossing of the body from side to side, and the constant contraction of the gastrocnemii. The pupils remained rather dilated, and almost immovable. Vomiting ceased about eighteen hours before death.

The urine examined on the evening of the 17th was rather less than normal in quantity; of a blood-red color—very cloudy; giving a heavy deposit upon standing. Sp. gr. 1022; acid, not phosphatic, abundant in chlorides; very albuminous, the tests showing a given quantity to contain half the quantity in bulk of deposited albumen. Examined on the evening of the 18th, the urine was about the same in color and consistence; sp. gr. 1020; acid, not phosphatic, abounding in chlorides; less albuminous. On morning of 19th the urine was lighter in color, and less cloudy; sp. gr. 1014; acid, not phosphatic, abounding in chlorides; still less albuminous. The whole amount of urine passed from 9 A.M. of the 19th to 11 A.M. of the 20th was kept and examined. The total amount was 280 cubic centimetres; sp. gr. 1013; acid, not p' osphatic; chlorides abundant; albumen very slight in quantity. An ounce of this was taken and tested for urea, being first evaporated, and then treated with nitric acid; then dried and weighed. The result was, that in 280 cubic centimetres, or nine fluid ounces of urine passed in twenty-four hours, there were but 34·56 grains of urea in place of 286 grains, given as one of the lowest estimates of the average amount excreted in twenty-four hours by a healthy man.

At 8·30 P.M. of the 19th, the temperature of the body was 99°; pulse 98; respiration 22.

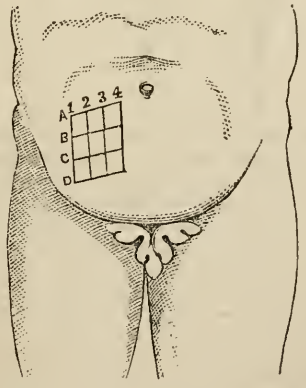
AUTOPSY, *eight hours after death.*—The general external appearance presented no peculiarity except a somewhat distended abdomen. Thorax contained no effusion; adhesions on right side, but not firm; no adhesions on left side; both lungs healthy, except being heavily congested posteriorly. No effusion into pericardium; right ventricle dilated, walls one-fourth inch in thickness; left ventricle hypertrophied, the walls seven-eighths of an inch in thickness; the cavity not altered in size; valves healthy. Abdomen distended. Stomach and intestines distended with flatus, and of healthy appearance. Liver normal in size, and a perfect specimen of a hob-nail liver; left lobe somewhat large; no biliary calculi. Kidneys larger than normal, and pale. Bladder slightly contracted. Spleen rather larger than natural, though healthy. The cavity of the abdomen contained about two quarts of serum. The peritoneum presented a healthy appearance. The veins of the omentum were congested. On cutting into the kidneys they presented a typical specimen of the earlier stages of Bright's disease. The cortical substance was much enlarged, and encroached upon the tubular portion.

New Instruments.

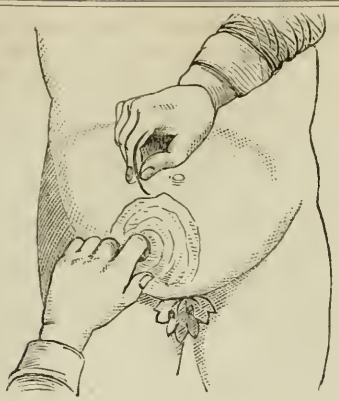
PROFESSOR DOWELL'S SUBCUTANEOUS SUTURE FOR THE RADICAL CURE OF HERNIA.

PROFESSOR GREENVILLE DOWELL, of Galveston, Texas, has kindly furnished us with the following description of the new instrument which he has devised for the radical treatment of hernia, and the manner of using it.

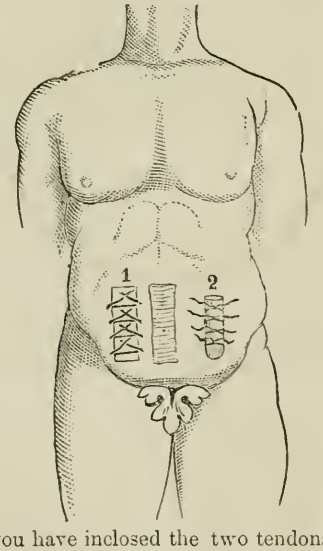
"With a double spear-pointed needle (as represented in the cut) threaded with silver wire, the two sides of the rupture are pulled together, thus restoring the natural parts.



"The operation is performed in the following way. First, four lines are drawn across the rupture; the needle, threaded with silver wire at one end, is taken hold of by the threaded end, and at the second line of the right side, inserting the point after lifting up the cellular tissue and passing the needle out on the fourth line, it is drawn nearly through. At this stage seize the other end of the needle and reverse the point, passing it through the left tendons of the oblique muscles; your left index finger invaginating the sac and acting



as a guide to the point of the needle. Under this finger the needle is passed to the tendons of the right oblique muscles, inclosing about one half-inch; then the point is brought out on the first line. Then seize the other point and pull it through until the other end of the needle is *above* the tendons in the cellular tissue. Now reverse the point, lifting or pinching up the skin and cellular tissue as at the commencement, bringing out the needle in the third line.



"Thus you have inclosed the two tendons in a loop, and the two external ends cross over the rupture. Now close the opening by pulling the ends of the wires together, as a shoemaker does when he sews the soles of shoes. Tie these over a piece of cork and let them be tightened from day to day until the wires become loose, after which they should be taken out.

"I have performed this operation once with entire success, and the cure was perfect; the patient at the end of five years remaining perfectly well. I tried to pass the wires with a common surgical needle in two other cases, but could not put them through in the manner desired, and they were failures or partial failures. Messrs. George Tiemann & Co. made me some needles with an eye in the centre, but they were too short, so that I could only use them on children—and the one cured was a child. In performing this operation, and in using the needle, care should be taken not to puncture the intestine, nor take up the omentum, nor to allow the cellular tissue to be between the loops of the ligature, else you will have a plug formed and filling up the space that should be closed."

Correspondence.

INJECTIONS IN CHOLERA.

To the Editor of the Medical Record.

Sir—In the fifth number of the Medical Record my attention was attracted to an article by Dr. O. H. Smith of this city, entitled "Injections in Cholera." In the perusal of it, I was so impressed with the straightforward earnestness of the writer, the simplicity and reasonableness of his method, and the positive manner in which he asserted the power of stimulating injections to control the discharges in cholera, that I called on the doctor soon after for some of the particulars of the experience on which he based his assertions.

In addition to an extended relation of cases in which his plan had proved efficacious during the cholera epidemic of 1854, Dr. S. showed me letters from Dr. Waltzer (Deputy Health Officer at Quarantine), who had, at Dr. Smith's request, used the stimulating injections in several extreme cases of Asiatic cholera. In these letters Dr. Waltzer distinctly states that they had controlled the discharges in every instance. My own experience in the treatment of cholera during three epidemics—two in this city, and one in Central America—convinced me that if the plan above alluded to succeeded in other hands as it appeared to have done in those of Drs. Smith and Waltzer, it was a great improvement in the treatment of the disease over any method within my knowledge, and I determined to test its efficiency at the first opportunity.

This occurred on the 19th of the present month, when at 7 P.M., I was called to see Mr. W., a merchant, aged about 40, residing in one of the most unexceptionable localities on Murray Hill. Mr. W., who had enjoyed uninterrupted health for a long time previous, returned the evening before from a fishing excursion in Orange county, and had partaken freely of strawberries and trout for his supper. On the following morning he was not feeling as well as usual, but went to his place of business; he returned at 11 o'clock A.M., feeling much exhausted, and suffering with diarrhœa and nausea. In the course of an hour or two, vomiting of a thin, light-colored fluid took place, accompanied by discharges from the bowels, which latter, painless though not very copious, were apparently of the same character, and occurred at intervals varying from half an hour to an hour. This condition of affairs continued without any sort of treatment until my arrival at 7 P.M., when I found him with a countenance pale and anxious; skin hot and dry; tongue dry, rough, and slightly furred; pulse small and quick—108; respiration accelerated, with frequent sighing; great restlessness; a craving thirst and distressing nausea, with a constant desire to have a passage from his bowels, which he struggled manfully to control. Within five minutes after my arrival he had a copious alvine discharge of a whey-like fluid, with vomiting not unlike the same. I at once had a large sinapism applied over the surface of the stomach and bowels, and administered a tablespoonful of the following mixture:

℞. Spts. ammon. aromat.,
Tr. camphoræ,
" opii,
" capsici,
Chloroformi, āā ʒ i
Aq. cinnamomi, ʒ iiss. M.

Lumps of ice were allowed, to be slowly dissolved in the mouth, to allay thirst. For a little time after the administration of the medicine the patient seemed quieter and expressed a sense of relief; but it was of short

duration. After half an hour, vomiting and purging recommenced, and another dose was given with a similar result, but of shorter duration; the third dose was given and rejected within a few minutes. The dejections were now more copious and distinctly flocculent, and cramps of the legs commenced, adding greatly to the sufferings of the patient; the skin, however, was still above the normal temperature and dry; but the pulse was less forcible, though not materially accelerated. At this point I determined that the case was one of true cholera, and prepared to administer the stimulating injection proposed by Dr. Smith, viz. two ounces each of brandy and a strong infusion of green tea; I also sent for Dr. Smith, that he might see the case and observe with me the effect of his plan. The doctor arrived just as I was in the act of administering the injection. During the last twenty minutes a marked change had taken place in the condition of the patient; the skin had become cool and moist, the voice husky, the cramps increased in severity, the muscular knots on the legs were large, hard, and prominent, and unrelieved by the brisk friction that had been bestowed upon them; the nausea was constant, and there had just been at least a pint of discharge from the bowels and half that amount from the stomach—whey-colored and flocculent. Dr. Smith remarked that it appeared to be as well defined a case of cholera as he had ever seen. At this stage of affairs I administered the injection, composed, as before stated, of a wine-glass of brandy and a like quantity of strong green tea. Before the operation was fairly completed, the patient indicated that he was unable to retain the injection. I therefore seized a napkin, and as I withdrew the pipe, made firm pressure against the sphincter and maintained it steadily for about fifteen minutes—until the patient said he felt able to control it himself. *There was no vomiting subsequent to the administration of the injection,* and the nausea rapidly subsided; bottles of hot water were placed about the legs and body of the patient. The cramps continued, but with decreasing severity, for about an hour, when they ceased entirely. The coolness and moisture of the skin gradually disappeared; the pulse became fuller, and fell to 96.

There was but little change from this during the night; patient quite restless, but expressing himself as very comfortable, except for the thirst. I administered no further medicine except a pill containing two grains each of calomel and camphor, with one of quinine, once in six hours.

Mr. W. had no operation of the bowels for thirty-six hours after the one immediately preceding the injection; then he had a copious fecal evacuation—the result of half an ounce of castor oil, combined with a tablespoonful of the chloroform, etc., mixture, given twelve hours previously for that purpose.

Mr. W. had a slight fever for two or three days, but on Monday, the 24th instant, he was entirely recovered and went to his business.

It was my intention, during the progress of the above case, to have made a microscopical examination of the discharges, that the diagnosis of the disease should, if possible, have been more positive; but they were disinfected and thrown out immediately after passage; and my direction (given before the administration of the injection) to reserve some of the fluids for that purpose, was misunderstood. Fortunately for my patient I was unable to procure a subsequent specimen.

Respectfully yours,

F. N. Otis, M.D.

No. 108 West 34th Street.

QUARANTINE.

To the Editor of the Medical Record.

Dear Sir—In the last number of the Medical Record I have noticed a letter from Professor Post on the subject of Quarantine, and your remarks on the action of the "American Medical Association" on this subject at its last meeting. *I* fully agree with the Professor that "it is not fair to set down all who voted against the reference of this subject to Congress as *absolute non-contagionists.*" So far from it, it is well known that a large majority of the members were contagionists; in other words, believed in the *portability and infectious character of cholera.* The final vote to lay the question on the table had no special bearing on this point.

But what I wish briefly to consider are, the reasons Professor Post offers why "personal quarantine" especially ought not to be enforced; and these may be summed up under the following heads, viz.:

1. "The impossibility of excluding the pestilence by any quarantine regulations."

2. "The evils necessarily attendant upon a rigid personal quarantine" to the persons quarantined.

3. The injury inflicted by such quarantine on commerce, and those engaged in commercial operations.

4. Its effects on the public health, and as regards the treatment of the sick, etc.

1. In reply to the first objection, it may be answered, that quarantine, imperfectly as it has been carried out, has protected New York city for more than six months against the introduction of cholera; and if six months, there is no good reason why it may not for six years, or sixty. Owing to the want of proper buildings and accommodations on land, it has been impossible, of late, as cholera vessels and cholera patients have multiplied, to maintain a sufficiently rigid quarantine; and there is grave reason to believe that, in a few instances, the poison has been introduced into the city and probably carried to other places. Under better regulations, however, this need not, and would not probably have happened. There are numerous instances now on record where a rigid quarantine has proved perfectly successful in guarding against the introduction of cholera into a place or country.

2. In regard to the evils "necessarily attendant upon a rigid personal quarantine," under proper regulations and with suitable accommodations, they are more apparent than real. Cabin passengers would rarely have to be detained at all, and only such emigrants as have been exposed to the emanations from the sick, or their dejections; none but the emigrants on board cholera ships would have to be detained a single hour, and few such vessels can be expected to arrive at any of our ports, certainly at not more than three or four, and then at the rare interval of months or years.

In such cases ten days would ordinarily suffice for the period of detention, and passengers might be made as comfortable, and even more so, at the quarantine station than at the ordinary cheap boarding-houses and hotels in the city. Under regulations such as described by Dr. Marsden, of Quebec, or as sketched by Dr. Lee in your number for July 2d, no such evils as are depicted could possibly exist. Whether it is a fair mode of reasoning to assume that what is called a "rigid quarantine" necessarily presupposes that the present miserable arrangement is to continue in the future, it is unnecessary to discuss. No one can condemn the present barbarous system of confinement on board the vessels more than the present writer.

Assuming, what we have a perfect right to assume in the present state of our knowledge on the mode of pro-

pagation of cholera—for example, that it is not only possible, but very probable, that a rigid quarantine will exclude the disease—where is the inhumanity in endangering or sacrificing the lives and health of a whole community to prevent the possible inconvenience and hardships of a few emigrants? Which shows the greatest "narrow-mindedness" in opening wide the floodgates of foreign pestilence, or keeping them closed? If it is proper to feel "indignant" at the sacrifice of a few lives of "Scandinavians and Germans," what shall we say to sacrificing hecatombs of our American people to a theory which facts have abundantly demonstrated to be no longer tenable!

In respect to the argument, that "*personal* quarantine inflicts injury on commercial cities, by deranging the operations of commerce," it may be said to be more imaginary than real; a quarantine, like that proposed in the present instance, which admits, repels, and guards, after a day or two's detention and purification, can hardly be said to embarrass commerce to any degree worth naming; nor is it easy to see how the detention of emigrants or others for a few days is likely to exert any serious effect in this respect. The real question is—Which will have the most serious effect in deranging the trade and commerce of a city, the absence or presence of an epidemic disease? Compare the commerce of New York in 1832 with that of the present year, and we have a ready answer. And had our quarantine for the last six months been no more rigid than in 1832, in all probability our city would have suffered as much in this respect as during that year. Talk of persons "being thrown out of employment," and their friends being subjected to severe privations in consequence of a rigid quarantine in the lower bay! Why the absurdity of the proposition precludes any serious reply. But what would necessarily happen in case a cholera epidemic like that of 1832 should prevail in the city? Let the experience of that fatal year answer.

The other arguments advanced by Prof. Post are really unworthy of notice. What we have, as physicians, to deal with, are *facts*, not their consequences; we are not to be held responsible for these. If the poison of cholera is contained, for example, in the dejections of cholera patients, as is now generally believed, we are bound to act on that belief. If the cholera poison be an exotic, then we are obliged to treat it as such and keep it out of the country; and whatever measures are necessary to effect this, are perfectly proper and justifiable; commerce or no commerce, nothing can be placed in the scale against human life and health. It is unnecessary, in this enlightened and Christian age, to apprehend any abandonment or neglect of the sick, no matter what theories of disease may be adopted; and if any are to be found so ignorant as not to know the value of personal and domestic cleanliness, as preventives of disease, they are not likely to know very much about quarantine regulations, or even whether there are any or not.

On this subject of quarantine, the highest commercial authority, Mr. McCulloch, has laid down the true rule of action: "Whenever there is any doubt, *it is proper to incline to the side of security.*" Of course where there is no doubt, as in the present instance, there can be no hesitation whatever in regard to the proper course.

I am, sir, truly yours,

RECTUS.

QUARANTINE AT SAVANNAH, BRUNSWICK, AND DARIEN, GA.—The ports of the above-named localities have been subjected to stringent quarantine regulations, in accordance with recent instructions from the War Department.

QUARANTINE IN EUROPE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—One of the principal reasons assigned for a belief in the theory of cholera originating in some peculiar epidemic constitution of the atmosphere, is the general failure of quarantine, as maintained in foreign countries. The "Epidemiological Society of London," for example, has expressed the opinion recently, that quarantine, ever so strict, will not keep cholera out of England. Such is the opinion of the ablest medical men in Great Britain. But does it thence follow, that quarantine against this disease is therefore useless for the United States? By no means. The two countries are situated very differently as bearing on this question. It is now well ascertained that the usual incubative period of the disease is within seven days, but may extend to fifteen, possibly twenty. Should cholera prevail in any part of the continent of Europe, persons who have been exposed to the infection, and have the germs of the disease in their systems, *may travel to the remotest parts of that continent during the incubative period and be then attacked, and thus create so many distinct foci* from which the infection may spread in every direction; and during this period no diagnostic signs of the disease can possibly be detected, for none exist. The "*London Lancet*," of May 12, 1866, admits this, and truly says that "the difficulties in the way of excluding the disease from England are insuperable." *Cholera-carries*, in the shape of German emigrants from Holland laden with infection, were landed in apparent health in English ports, before the cholera was even known to exist in Rotterdam, whence the vessels sailed, or even in Holland. Those were the emigrants who embarked on board the ships *England* and *Virginia*, and sickened with cholera during subsequent passages. So, last year, the cholera was introduced into Marseilles and other places on the Mediterranean coast from Alexandria, before the disease was known to exist in Egypt.

We are differently situated; the period of passage of ships between the United States and Europe is longer than the ordinary incubative stage of the disease: and in all probability persons embarking who have been exposed to the infection, have already had the germs of the disease in their system several days. Cholera ships can, therefore, with great certainty, be distinguished from all thers—and none others need to be quarantined. This is a safe and practical test, and simplifies the whole question greatly. I believe facts show very conclusively that if a person continues well ten days from the time of exposure, there is but little risk that he will afterwards have the disease unless he derives it from a new source. Hence the risk of a communication of the disease across the Atlantic is very small, and it will be our own fault if we have it introduced into this country at all.

Let us therefore hear no more of the argument (?) that because quarantines have failed in Europe, they must necessarily fail here. There is no analogy in the two cases. I do not say that Providence has placed us so far from the Old World, that we may be able to shut out from us all its infectious diseases; but I do say, if we do not use the means which have been kindly placed in our hands for this purpose, we shall be guilty of the most reckless neglect and indifference to the health and welfare of our citizens. Truly yours,

CHAS. A. LEE, M.D.

Peekskill, July 4, 1866.

PROF. FARADAY has received the Albert Gold Medal of the Society of Arts for his discoveries in electricity, magnetism, and chemistry.

Obituary.

PROF. R. D. MUSSEY, M.D., LL.D.

Reuben Diamond Mussey, son of Dr. John Mussey, was born June 23, 1780, in Pelham Township, Rockingham county, New Hampshire.

In his fifteenth year, after some preliminary training, partly of a home character, he became a pupil at the Aurean Academy, Amherst, N. H., and was there prepared to enter the freshman class in one of the New England colleges: but owing to limited pecuniary resources, which necessitated farming in summer and teaching in winter, he was compelled to submit to a temporary interruption of his plans for the future. Thus it was not until 1801, that, with the promised aid of a not over-wealthy father and with moderately recruited finances, he enrolled himself a junior in Dartmouth College. Immediately after gaining his Baccalaureate degree from that institution, in 1803, he entered the office of the late distinguished Nathan Smith.

But, in this instance also, in consequence of a compulsory acceptance of an academic appointment at Peterborough, N. H., his medical studies during the ensuing summer were mainly directed by Dr. Howe, of Jaffray, N. H. Still, this arrangement appears to have been merely temporary, and did not sever the relations between his original preceptor and himself. He received his degree of Bachelor of Medicine in August, 1805, after a successful public examination and an unusually logical defence of a thesis on Dysentery. A three years' residence in the south parish of Ipswich, now Essex, Mass., and a journey to Philadelphia, accomplished by means of such fees as he could collect, constitute a part of his early professional history. He profited largely by the advantages accruing from the teachings of Rush, Wistar, Physic, with others scarcely less distinguished; and obtained in the spring of 1809, from the University of Pennsylvania, his full medical degree. It is proper to add in this connexion, that during Dr. Mussey's stay at Philadelphia he challenged the attention of the profession by instituting, in his own person, certain experiments with the view of settling a question then only mooted, regarding the introduction of liquids into the system by cutaneous absorption. It is related of him, that after a three hours' immersion in a strong infusion of nutgalls, followed by a like proceeding for the same length of time in a strong solution of copperas, he did not, until the lapse of a week or two, regain his usual health. This last experiment did not establish his position as satisfactorily as the series conducted with madder and rhubarb as agents, although as a whole they very materially modified the teachings of Dr. Benjamin Rush, whose opinions then held nearly undisputed sway in the American medical world.

Departing from Philadelphia with his coveted diploma, he next resumed practice at Salem, a town contiguous to Boston, where with his professional colleague, Dr. Daniel Oliver, he divided the honor of having initiated a course of popular lectures upon chemistry.

After a residence at Salem of nearly six years, he accepted, in the autumn of 1814, the chair of the "Theory and Practice of Physic" in the Medical Department of Dartmouth College, from which institution he had derived his degree of LL.D. two years before. In 1819 he was chosen Professor of Anatomy and Surgery in the same school, a position which he retained until the close of the session in 1838. He also lectured on chemistry at the Middlebury College in Vermont during the summer of 1817, besides fulfilling on emergent occasions the duties belonging to the chairs of Materia Medica and Obstetrics, in the institution having the first claims upon his attention.

An absence of ten months upon the continent, dating from December 1829, was the only interruption to labors assiduously pursued in public and private; but even for these, with a rare conscience, he rendered a full equivalent by extra exertion and self-imposed tasks.

It is incumbent upon us also to mention that he delivered surgical lectures in the Medical School of Maine during the winters of 1830 to 1833 inclusive, as well as in a now discontinued institution, situated in Fairfield, Herkimer county, New York, for the successive seasons of 1836 and 1837; but neither of these courses, owing to a division of time as allotted to each, interfered with his duties as a medical teacher in his native State.

An invitation in the fall of 1838 to a Professorship of Surgery in the Medical College of Ohio, at Cincinnati, brought about a change of residence to the West. In 1852, he transferred his allegiance to the Miami Medical College, in the same city, by the acceptance of a corresponding position.

Besides these relations, he rendered continuous and eminent service in the Commercial and St. John's Hospitals, Cincinnati, and was the fourth President of the American Medical Association, having occupied the chair at the Charleston meeting in May, 1851.

Dr. Mussey was likewise prominent in the controversy regarding the bony re-union of intra-capsular fractures of the femur, of which question he maintained the affirmative, and challenged Sir Astley Cooper himself by a vertically sawed specimen, carried across the Atlantic. He also measured the weapons of debate with formidable adversaries at home, but with the merits of the contest it is not within our present province to deal.

Of the exact time when Professor Mussey removed from Cincinnati, or of the subsequent events of his life, we know comparatively little. A secular exchange chronicles the fact of his death in Boston, June 21, at the residence of a son-in-law, and makes the additional statement that "during the past two years he was confined to his bed by a disease, certain symptoms of which puzzled the acutest physicians."

We are also informed through the same source that "Professor Mussey's devotion to science was such that he left directions for a post-mortem examination of his body for the benefit of his profession."

As a surgeon, Professor Mussey was somewhat tenacious of his opinions, which he defended with vigor; was bold, self-reliant, original, thoroughly versed in anatomy, usually rapid in his conclusions, attentive to the details of his operations, and particularly anxious regarding the care due to patients on the part of attendants. He also had acquired the habit of tracing the results of surgical interference in the persons of the subject, even through a series of years, and was therefore seldom at a loss for an accurate, although generally unexpressed, prognosis.

In 1830, just before his visit to Europe, he removed a large, ulcerated bleeding nævus upon the head, after resorting to a ligature of both carotid arteries, at an interval of twelve days apart. The published account of this case met him upon his arrival in England, and at once introduced him into the choicest circles of the profession.

The *American Journal of Medical Science* at Philadelphia, 1853, contains the account of yet another operation of this class, in which both carotids were successfully ligated, for the cure of aneurismal enlargement of the arteries about the ear.

He has operated, also, with marked success in many

cases of osteo-sarcoma, was a brilliant lithotomist, could point to numerous cures of varicocele by subcutaneous ligation of the spermatic vein, and was besides a judicious surgeon in that large class of diseases having for their seat the genito-urinary apparatus.

Decided at length, not so much by the mental strain resulting from long continued, unremitting labors, as by the desire to pursue at leisure the inviting paths opened by the critics and philosophers of his profession, he consented to relinquish a practice, lucrative to be sure, but grown large enough to be unwieldy. This step taken, though it was about the close of his seventieth year, in all likelihood deprived him of some additions to his surgical laurels; but there was no disturbance of his mental serenity, since with him the desire for mere popular fame occupied a position indeed subordinate.

Unless, however, Dr. Mussey's early habit of omitting to record his cases has been in a measure corrected during the wane of a long life, much that is valuable has been irrecoverably lost to the profession.

It is to be hoped that his literary remains, if any there be as yet unpublished, may receive proper consideration at the hands of executors.

One of Dr. Mussey's sons was Brigadier-General R. D. Mussey, who till recently was President Johnson's private secretary.

In private life he was an earnest, conscientious Christian, rigidly abstemious in his habits, and for many years reputed to be a practical vegetarian.

Medical News.

Personal.

As changes in the *U. S. Army Medical Department*, we notice that Brevet Lieut.-Col. C. C. Keeney, Surgeon U. S. Army, has been ordered to accompany Major-General Halleck, commanding Military Division of the Pacific, on a tour of inspection through Nevada, Idaho, Oregon, and Washington Territory.

During the temporary absence of Brevet Lieut.-Col. Keeney, Brevet Col. Murray, Surgeon U. S. Army, will, in addition to his other duties, attend army officers and their families in the City of San Francisco, Cal.

The resignations of Surgeons H. Lawrence Sheldon and David O. Farrand have been accepted, to take effect July 1, 1866.

Permission to delay reporting to the Commanding General and Medical Director to the Department of the Platte for twenty days has been granted to Brevet Major Philip C. Davis, Assistant Surgeon, United States Army.

Assistant Surgeon J. B. Petherbridge, United States Army, recently appointed, is ordered to report in person without delay to the Post Surgeon at Carlisle Barracks, Pa., for temporary duty.

Brevet Lieut.-Col. John J. Milhau, Surgeon U. S. A., has been ordered to Hart's Island, N. Y., to investigate and report upon the recent outbreak of cholera at that locality. A corps of civil physicians will coöperate with him in the adoption of such measures as the exigencies of the case may demand.

In the corresponding department in the *U. S. Navy*, the following orders have been recently promulgated: Wm. V. Marmion, George S. Culbeth, J. N. Kidder, Ernest D. Martin, Thos. K. Brown, Adam Trace, Robert A. Wheedon, Edward H. Ware, are to be Assistant Surgeons; commissions to date from June 25.

The resignations of Assistant Surgeons William C. Cook and John Philbrick, were accepted June 28.

The following officers have been ordered: Assistant Surgeon James M. Flint, from the receiving-ship at Baltimore, to the Naval Academy at Annapolis; Surgeon T. M. Potter, to the naval rendezvous at New York, to relieve Surgeon J. S. Kitchen, who is placed on waiting orders; Passed Assistant Surgeon H. L. DuBois, to duty in the North Pacific Squadron; Assistant Surgeon Robert A. Whedon, to the Naval Hospital at New York.

The following have been detached: Acting Assistant Surgeon E. A. Dulin, from the Pampero, and waiting orders; Assistant Surgeon William V. Marmion, from the Naval Hospital, New York, and ordered to the steamer Bienville.

Acting Assistant Surgeon Perley H. Johnson has been honorably discharged, to date from June 26.

Dr. Samuel R. Percy, Special Inspector of Milk by appointment of the Health Board, having completed his duties, has been accordingly relieved.

Dr. Paul Beck Goddard died at Philadelphia on the 5th ultimo, after a brief illness. His devotion to wounded soldiers, during the war, gained him great popularity among the people. For a man of so much ability, he had singularly little to do with the pen; but few physicians in the country have had so large a practice, and its demands were no doubt greatly varied and exacting. In cases testing the resources of the medical art and science, he was summoned frequently; and in a city somewhat distinguished for well educated physicians, his rank was deservedly high. Like many of the great lights of his profession, Dr. Goddard was, apart from medicine, a wit and scholar.

Dr. Wm. R. Donaghe, formerly a prominent medical teacher and an alumnus of the University Medical College, class of 1852, died July 18, in this city, aged 36 years.

PROGRESS OF THE CHOLERA.

In Syria and Egypt, the cholera has reappeared, but it is more of a sporadic than an epidemic character, and is steadily diminishing.

In Europe.—"Riveted by the war which has broken out on the Continent, public attention for the moment has been diverted from the cholera.

"The progress of the disease in Eastern as well as Western Europe has, however, during the past month been such as to require narrow attention.

"The epidemic has broken out in Jassi, Focktchani, and other towns of the Moldo-Wallachian territory. It is to be presumed also that the malady has resumed its activity in the south-western provinces of European Russia, as active measures against it have been already adopted in St. Petersburgh.

"In Holland the disease is widely prevalent. From its first appearance in May (?) to the 13th of June, 724 cases and 431 deaths have been reported in Leyden; 216 cases and 135 deaths in St. Gravenhage; 396 cases and 220 deaths in Delft; 708 cases and 433 deaths in Rotterdam; 100 cases and 50 deaths in Gouda; and 305 cases and 169 deaths in Utrecht. In Prussia cholera has declared itself in Stettin, Berlin, Sweinemünde, Frankfort-on-the-Oder, Naustadt, Eberwald, Cammin, Arnswalde, and several villages. From the 2d to the 9th of June there were 103 fatal cases in Stettin. Sixty-five cases occurred in two days at Arnswalde.

"The disease has not yet shown much activity in Berlin and the vicinity—the cases, indeed, would appear to have been scattered mainly in the suburbs.

"The epidemic still lingers in the neighborhood of Altenburg (Saxony), and it is reported to have shown itself at Chemnitz and near Echternach, on the Rhine.

"The need of watchfulness at Liverpool is taught by what has befallen Antwerp. A short time ago cholera broke out on board an emigrant ship, the Agnes, in Antwerp port. The disease has now appeared in the city, and to the 16th of June there had been eighty-four deaths and 180 cases, irrespective of those which had taken place among the emigrants on board the Agnes. In France the epidemic has broken out in several places, and it was recently prevailing wi h great intensity at Amiens. Cholera still shows itself from time to time among emigrant ships sailing from Liverpool to the United States.

"The latest news from the East, while confirming the information of cholera having appeared among the returning Mohammedan pilgrims at Jedda, leads to the conclusion that the previous reports of the number of cases there were exaggerated. One of the caravans on the route to Medina is, however, believed to have suffered severely. The pilgrims who had reached and traversed Lower Egypt were said to be entirely free from the disease."—*London Lancet*, June 27.

We may add to the above the following:

Total of cholera cases at Stettin from June 2 to the 25th, eight hundred and ninety-four; total of deaths, five hundred and one. Two men in a regiment lately sent from Stettin to Leipsic, were attacked at the latter place.

The Paris correspondent of the London *Daily News* writes:

"We happily hear of no cholera occurring in Paris, but it has not yet disappeared from Nantes, and to-day some cases are reported from the barracks at Aire in the Landes, where three soldiers are stated to have died of it, but no civilian had been attacked. At Amiens, where there has been cholera for some time, the deaths are reported as twelve on June 23d, and nineteen on June 24th."

Dr. Harris, in an official letter of the 20th ult., in regard to the prevalence of the epidemic in Europe, uses the following language: "In Europe, as we were informed by the correspondence of the chief sanitary authorities, cholera has been gradually progressing northward and eastward. It has now reached St. Petersburgh, after spreading very slowly through the southern provinces of Russia, and in the northern German States during the winter and spring. In Prussia also, and in Saxony, the epidemic has lingered with great tenacity, and not the less on account of the massing of military forces. In the city and vicinity of Altenburg, where one wing of the Prussian army rested previous to the movement into Bohemia, the epidemic has reappeared with the same violence it exhibited on the same ground last autumn and winter."

In the United States, the pestilence, according to various authorities, has declared itself sporadically in Norwalk and New Haven, Conn., in Jersey City, N. J., and somewhat alarmingly in Brooklyn, N. Y., particularly in a certain quarter notorious for its contempt of sanitary laws. In New York City itself the daily average of cases is still not large; but owing to the early date of going to press, we refrain from giving statistics which may prove neither accurate nor valuable upon the appearance of the Record. A recent inspection of some thirty vessels declared an entire abatement of the scourge at the Quarantine station in the Lower Bay.

The disease has also appeared on Governor's Island, but as yet only one case has been reported, and that is under control. The same may be said of the disease on board the *San Salvador*, which sailed some days ago with sixty cabin passengers and four hundred and seventy-three recruits for the regulars now in Florida, and four officers. Thirteen cases occurred just previous to their landing on Tybee Island. There were but three deaths. Many of the recruits were said to be recent emigrants. No cases occurred among the cabin passengers; the troops are all comfortable on shore, and the sickness is subsiding.

Hart's Island, a Government Depôt, has also been visited, and we regret to announce among the victims James Theodore Calhoun, Assistant Surgeon U.S.A., and Medical Director of the Post—a noble, self-sacrificing, and devoted officer.

A fatal case also occurred in Cincinnati, Ohio, on the 17th ult., in the person of a German woman, an inmate of a crowded tenement-house in a filthy quarter. The locality is the same where the epidemic first appeared in 1849.

University Medical College, New York.—The University Medical College have effected a lease of the North House, on the New York Hospital grounds. The college will, for the present, be carried on in that building, by virtue of an arrangement made with the Governors of the Hospital.

Dr. J. W. S. Gouley has been appointed Professor of Clinical Surgery, and Dr. D. B. St. John Roosa, clinical professor of diseases of the eye and ear.

Vermont State Medical Society.—The semi-annual session of this society was held June 14, at Brattleboro, Vermont. Dr. Rockwell, of the Vermont Lunatic Asylum, read a paper on the Treatment of Insanity. The following papers were also read: On Dysentery, by Dr. Bullard; On Scarlatina, by Dr. Sperry; On Diphtheria by Dr. Holton; and on the Treatment of Cholera, by Dr. Butler. The meeting was well attended.

Abandonment of Seguine's Point as a Sanitary Emigrant Station.—In compliance with the petition of Mr. Seguine and other inhabitants of Richmond county, Judge Barnard, of Kings county, has granted an injunction restraining the Health Commissioners, the Commissioners of Quarantine, and the Commissioners of Emigration, from using Seguine's Point or any other part of Richmond county for quarantine purposes. The Richmond County people allege that the seizure of Seguine's Point was in violation of a State law forbidding the erection of quarantine buildings within a mile and a half of Staten Island shores. All the expenditures for improvements, etc., are of course lost. As a last resort, if the Board are compelled thereto, they will land passengers and care for them at the Battery Barracks.

The Malta Board of Health has established a quarantine of seven full days for all arrivals from Liverpool.

Connecticut State Lunatic Asylum.—Thirty-five thousand dollars have been appropriated by the late Legislature of Connecticut towards the erection of a State Lunatic Asylum.

The Verplanck State Hospital.—The New State Emigrant Hospital on Ward's Island, the corner-stone of which was laid August 10, 1864, was formally named on the 13th ultimo, the Verplanck State Hospital, in honor of the President of the Commissioners of Emigration; and has since been opened for the reception of patients. The event was celebrated by the Emigration Commissioners and the Board of Trustees of the Irish

Emigration Society, by an excursion to the island, and a dinner, followed by speeches, at the house of the Superintendent. The cost of erection will reach in the aggregate about three hundred thousand dollars. The buildings, five in number, are arranged upon the pavilion plan, the central structure being three stories high, the remaining four two stories high, separated by a wide court-yard, completely isolating them from each other. The wards are situated upon the southern portion of each pavilion, being sheltered on the north by the dining-room, nurses' apartments, closets, hall, etc., by which an equalized temperature and additional facilities for ventilation are secured. Large corridors also connect the pavilions, and serve the purposes of a sanatorium for convalescent patients. Steam from boilers in a disconnected building, located near the centre of the hospital, at once supplies the kitchen, laundry, and bakery, as well as warms the structure as a whole.

The wards, ten in number, will accommodate 300 beds; and when necessary their capacity may be increased to 200 more, with the only disadvantage of reducing the allotment of air from over 1200 cubic feet for each bed to 700 cubic feet.

With these conveniences for comfort, cleanliness, and perfect ventilation, it is claimed that this hospital will rank among the finest and best arranged in the world.

The Rinderpest.—The cattle plague still exists in Great Britain, although it is authentically stated to be on the decline. 987 occurred during the week ending June 9th.

Physician to the King of the Belgians.—Dr. Eustace Smith, of London, has been appointed physician to His Majesty the King of the Belgians.

Prof. Flint's recent work on Practical Medicine has met with a very favorable reception in Great Britain. The *London Lancet* thus speaks of it:—"The old routine of description and prescription is not observed, and in the plan of the work, and the treatment of individual subjects, there is a freshness and an originality which make it worthy of the study of practitioners, as well as students. It is indeed an admirable work, and highly creditable to American Medicine. For clearness and conciseness of style, for careful reasoning upon what is known, for lucid distinction between what we know and do not know, between what nature does in disease and what the physician can do and should; for richness in good clinical observation; for independence of statement and opinion in great points of practice, and for general sagacity and good judgment, the work is most meritorious. It is singularly rich in good qualities, and free from faults. Dr. Flint does not care from what source he derives material for the formation of opinion, and he is always explicit in his statement of the source. He defers greatly to physiologists and chemists, but has a keen perception of the point at which they cease to help the physician; and beyond this point, and in the absence of these guides, he comes to the best opinion to which his long and close clinical observation enables him to come."

It is certainly very pleasing to be able to record from such a source such a high opinion of an American work. It is not only a gratifying recognition of the services of the author, but it is a compliment to the medical literature of our country.

Quacks in Chicago.—The Chicago *Post* gives an account of a quack doctor who was brought to the witness-stand in one of the Courts in this city, and appeared so profoundly ignorant of the science of medicine that some inquiries were made of his career and method of practice, which caused some curious revelations. He had practised as a physician in Chicago for twenty years. He had never been at any university. He had never obtained a medical diploma. He knew nothing whatever of medicine or surgery. He could speak German and a few words of English, but knew nothing of any other language; and was in fact, upon all general subjects, deplorably ignorant. Yet this man had actually practised as a physician in this city for twenty years, and had accumulated a handsome fortune. For a young girl who was dying with consumption, he ordered that a compound of coal-tar, vinegar, and assafœtida should be put in a large jar and kept constantly stirred by her side; and although the stench was horrible, the sufferer had to breathe it till she died.

A patient was suffering from sore eyes. The learned physician told her, with great solemnity, that the fat which was to work the cure must be the fat of a cat. Furthermore, that the cat which gave the fat must be black. A single streak of white would spoil the charm, and the fat of a grey or brindled cat would strike the patient stone blind.

A New Hospital at Washington, D. C.—The ceremonies of laying the corner-stone of the building for the Providence Hospital on Capitol Hill, took place during the past month. Archbishop Spalding, of Baltimore, officiated. Father Maguire, President of Georgetown College, the Rev. Dr. Samson, President of Columbia College, and a number of members of Congress and other officials were present. The Providence Hospital was founded by the Sisters of Charity of the District of Columbia. During the war it was used by the Government as a hospital for our sick and wounded soldiers, and was under the management of Sister of Charity Mary Carroll.

Yellow Fever at Vera Cruz.—Recent advices inform us that "in consequence of the accumulation of dirt in this city the yellow fever is raging badly, and the place is almost deserted. During one week of the past month the average number of deaths per day was about fifty. On one day in particular fifty-three men died in one hospital alone. At this time the fever still rages fiercely, and the hospitals are all filled."

Lunacy in France.—A recent report shows that in France, in 1865, there were no less than eighty-four thousand lunatics, being about 1-429 of the whole population. To persons subjected to hard mental labor it will be a consolation to find that out of that large number only three hundred and fifty-eight cases are attributed to intense mental application, so that it may be inferred that the brain will sustain more wear and tear than any other part of the human frame. Religious feeling carried to excess produced one thousand and ninety-five cases of lunacy.

The United States Marine Hospital at Cincinnati was sold at auction, on Thursday, for $75,000. It cost the Government $250,000 ten years ago.

Clitoridectomy.—The new operation of amputation of the elitoris, proposed by Baker Brown of London for the cure of epilepsy, is being rather severely criticised by some of the British surgeons. They contend that the procedure is unwarrantable, and that it is unattended with any good result. This is only another of the many proofs of the tricky character of "hobbies" when an attempt is made to ride them by parties not specially interested.

Original Communications.

HOMŒOPATHY AND CHOLERA.

By A. P. MERRILL, M.D.,
OF NEW YORK.

In regard to an epidemic disease which has everywhere and under every plan of treatment proved so intractable as cholera, and which is scarcely less fatal now wherever it prevails than when it first appeared, it is proper to notice the amount of success which has attended upon every form and variety of management; and especially is it desirable to inquire into all comparative results, as set forth in the reports of different systems of practice. And without reference to details which are familiar to those acquainted with the literature of the subject, it can scarcely be doubted that the claims of homœopathy, now once more so persistently urged, are not to be wholly disregarded. But it must be considered that the proofs adduced in favor of any plan of treatment, however abundant and well authenticated, are in general by no means conclusive; because it is true of cholera, as of most other epidemic diseases, that in ascertaining the average rate of mortality, much depends upon the number of cases of a mild grade of the disease which are embraced in the account. In the published reports this subject is not often referred to.

I have known a physician of celebrity in the South to rate his loss of patients in the whole course of an epidemic of yellow fever at five per cent.; but when requested to confine his estimate to such of his patients only as were confined by the disease to their beds for one or more days, his rate of mortality was increased to eighty per cent. The proportion of cases of a mild grade was of course large, and many of them were doubtless within the control of the remedial powers of nature; but in so fatal a disease it would have been imprudent to have entrusted any one case to those powers alone. As in cholera, the insidious character of yellow fever, in its early stage, renders it quite impossible to determine what will be its grade of severity at a later period, in any case that occurs.

Now, there are good reasons for believing that the proportion of mild cases in most cholera epidemics is even larger than in epidemics of yellow fever; and certainly there are better chances of recovery from an advanced stage of cholera without medical treatment. In the latter disease spontaneous reaction sometimes takes place in the stage of alarming depression of the vital powers, unexpectedly inaugurating a stage of convalescence; but in the latter and corresponding stage of yellow fever there is little hope of relief, except from the appliances of art. More dependence may be placed upon the curative powers of nature in cholera, therefore, than in yellow fever, and most other epidemic diseases of a fatal character; and in making up the percentage of mortality there is a greater necessity for information in regard to the proportion of mild and tractable cases. Without this the question of successful treatment is involved in great uncertainty. Indeed, there is little reliance to be placed upon statements which are not confined to such subjects only as have suffered from the graver grades of the disease, as evidenced by cramps, thirst, cold sweating, husky voice, and sinking pulse. I do not include vomiting and rice-water dejections from the bowels, because these are sometimes wanting in dangerous attacks of the disease.

But after making due allowance for advantages that may be taken of mild grades of cholera in making up death-rates, it is not to be presumed that many persons are admitted into cholera hospitals without really having the disease at all; and it seems undeniable that a degree of success has attended upon homœopathic treatment in certain hospitals, which is deserving of serious attention. Admitting any considerable success from this plan of treatment, the question to be determined is—What explanation can properly be given of it? Is it due to the alterative power of infinitesimal medication—to remedial agents in doses of a decillionth of a grain? This is, of course, impossible; for the causes of disease and the remedies alike must necessarily act upon the system to produce changes in functional movements, without which healthy function is not impaired, or disordered function remedied; and it is not to be believed that in either case these changes are produced by agencies less active than the common aliment required to support life and health, or less active than those excitants and sedatives which in their operation come short of producing either disordering or restorative effects. Disease, therefore, cannot be cured by infinitesimalism as interpreted by Hahnemann, and we must seek some other explanation of the boasted success of homœopathy in cholera.

After due investigation, my own conviction is, that this explanation is to be found in the fact that besides the adoption of a rigid and useful regimen, certain injurious medication is withheld by the homœopathic practice; thus realizing the hope of the expectant system in securing to patients the benefits of the remedial powers of nature. Cholera patients sometimes recover, but are not cured under such treatment; just as some persons recover from pneumonia, scarlatina, and infantile convulsions, without medicine of any kind, affording a delusive hope of a successful treatment of these diseases by means of regimen alone. And the homœopath has the additional advantage in the case under consideration, before referred to, that the reactionary tendency which often leads to recovery is stronger in cholera than in either of the diseases above named, affording in some cases reason to believe that the patient has been rescued from impending death, even in spite of unskilful treatment, by the remedial powers of nature alone.

It is notoriously true that, in both professional and non-professional treatment of cholera, opium in some form is almost always relied on as a prominent remedy. Whatever may be the character of other appliances for relief, whether they be external or internal, whether purgative or astringent, stimulating or contra-stimulating, opium appears as a concomitant prescription; and the fact that its use has been condemned by certain prominent physicians, imposes little restraint upon this common and favorite practice. The painful cramps, the prostrating influence of congestion, and the exhaustive discharges, appear to demand the application of a popular remedy which is nearly always at hand, and the comforting effects of which are familiar to the agonized patient and his anxious friends. Even although there were no encouragements to the use of opium derived from the opinions and practice of physicians, the temptations to employ it in a disease so formidable and distressing would be almost irresistible. But when its use is sanctioned by prominent medical man, by boards of health, and by sanitary and benevolent associations, not to mention the thousand secret nostrums which depend upon the soothing influences of this deceptive drug for their favor with the people, we cannot wonder that the use of opium in the treatment of cholera is almost universal. The homœopaths are an exception. They either do not use opium at all, or, if true to the principles of Hahnemann, they give it in doses so inconceivably small as to preclude all possibility of influencing bodily function, whether to produce like or unlike effects. Of

course this and all other remedies thus used are quite harmless of evil effects upon the system. This can scarcely be doubted when it is known—such is the smallness of the dose—that if all who have ever had cholera had been treated with opium homœopathically, the quantity that would have been given up to the present time would not amount to a single grain.

Experience in the treatment of epidemic diseases somewhat extended, has convinced me of the truth of the opinion sometimes proclaimed by others, that opium is injurious in those diseases which in their progress involve the pathological condition of congestion or inflammation of the mucous tissues, especially those of the digestive organs, excepting only in their inceptive and irritative stage. Gastritis from any cause, and particularly when it appears as a local lesion of yellow fever, is a remarkable illustration of this; and it is true also of diarrhœa, dysentery, cholera-morbus, and Asiatic cholera. Yet in all these diseases the initiatory stage is always characterized by more or less of nervous irritation, for which opium is a useful remedy. The dangerous use of opium in these several diseases results from a want of discrimination between this irritative and the congestive stage following it, a discrimination which the non-professional cannot be expected to make; and therefore it is unsafe to entrust them with the use of opium in cholera at all. The common addition of camphor affords no security against the mischievous effects of opium in this and other diseases to which the remedy is unsuited.

Nearly all the secret nostrums sold as remedies for cholera, as well as the prescriptions made by physicians for popular use, contain opium in some form, and it is the influence of this ingredient over the forming stage of the disease that gains for them some degree of public confidence. For every slight derangement of the stomach and the bowels, whether it be of the choleraic character or not, people resort to the use of these remedies, and in many cases they afford relief. This is sufficient encouragement for perseverance in their use in other cases not relieved, until that stage of the disease supervenes when the dose that was useful in the beginning becomes about the most injurious of any that can be taken; and thus is a most insidious disease rendered unmanageable by the persistent use of an insidious and deceptive remedy.

From an early period in the history of medicine, opium and other neurotic remedies have been successfully employed in the treatment of febrile diseases in their inceptive stage; and this practice appears to have been about equally in vogue among the advocates of two opposite and rival systems of pathology, the humoral and the nervous. And it is true of this treatment of fever, as of the treatment of cholera, that the success of opiates in the early stage has led to the continuance of these remedies at a more advanced period, when vascular engorgements and impairment of secretion render them inappropriate. There may be some exceptions in typhous, as I am sure there are in pneumonic fever; but in yellow fever, which is complicated with gastric lesions, and other forms of periodic fever complicated with other lesions of the abdominal and digestive organs, congestions and inflammations, generally most formidable in the mucous tissues, with consequent derangement of secretion, absorption, and nutrition, follow closely upon the disordered innervation with which the disease begins, constituting an alarming pathological condition strongly contra-indicating the use of opium. The uniform effect of this remedy in such cases is, to increase and intensify the alarming symptoms; and in the graver forms of fever in hot climates, its exhibition often proves fatal.

And these remarks are, I believe, equally applicable to cholera, which disease, both in its inception and progress, closely resembles in many respects the febrile affections above referred to. Although benefit may be derived from the use of opium in the primary stage, when nervous irritation constitutes the whole pathology, and neurotic remedies are specially indicated, the period of vascular congestion soon succeeds, as an invariable effect or sequence of such irritation unrelieved by treatment, when opium becomes injurious because of its tendency, as in febrile affections, to increase and intensify these congestions. Bloodletting is the more rational and effective remedy, as it is in the corresponding condition in fever, and it is in this stage that it has been successfully applied, even by the ignorant natives of India.

But under any system of treatment which has yet been devised for the relief of congestion, excepting only by the use of chloroform internally, which means I have so often urged upon the notice of the medical profession, morbid or febrile reaction is the only favorable result to be expected. In cases of severe and long continued congestion, especially when relieved without bloodletting to reduce vital power, this febrile reaction is sometimes too violent to be controlled by any known plan of treatment, and the patient is doomed to succumb to a fatal form of fever, after all the symptoms which may have characterized cholera in the previous stage of the disease have entirely disappeared. In this case it is as if he had suffered from a severe and long continued chill, followed by a violent febrile exacerbation, with every normal function impaired, and every healthy secretion either vitiated or suspended. The congestion under which the patient labored being of a sthenic character, there is a corresponding exaltation of vital energy in the resultant reaction; and if the unfavorable influences of opiate remedies be superadded we can have little hope for final relief. The mercurial treatment is the most efficient countervailing measure, and this sometimes succeeds by incurring the penalty of a distressing ptyalism.

It is the proper business of physicians to cure these and other destructive forms of diseases by treatment, without which the profession sinks into comparative discredit; but hitherto the experiments made with cholera can scarcely be considered less than lamentable failures. The rate of mortality is the same now as when the disease first appeared. The rule of one death out of every two severe cases, or cases which have passed from the irritative to the congestive stage, holds as generally good now as in 1832; and the same rule is observed in the booths and arbors of India as well as in the tenement-houses and hospitals of Europe and America. Greater success, with rare exceptions, has only been made out anywhere, by including a large proportion of mild cases, or cases which have been successfully treated in the inceptive stage of the disease—in which stage, all the world over, cholera is among the most tractable of all epidemic diseases. In this stage it is cured by a great variety and a small amount of medication. While we have other and more successful methods of treating the disease in its more advanced stages, and especially while we can resort to such effective remedies for congestion as chloroform internally and strychnia, it can scarcely be justifiable to persevere in the opium treatment; nor can it be considered expedient or proper to recommend to the non-professional and uninstructed such a remedy as opium, which in a large majority of cases must, in their hands, prove injurious and destructive to life.

Homœopathy may boast of success under the disguise of a placebo, and expectancy may claim the advantages of abstinence from heroic remedies, and both find con-

solation in the benignant powers of nature; but a noble profession, whose aims and purposes are the preservation of human life, should not be content with anything short of the adoption of remedial measures for so fatal a disease, which promise positive and beneficent results in every individual case.

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LARYNGOSCOPY.

By J. SOLIS COHEN, M.D.,

OF PHILADELPHIA.

No. II.

It has been considered by a good many observers a highly desirable object to secure some method of *magnifying the image formed on the laryngeal mirror.* This was first attempted (Wertheim) by the employment of a concave laryngeal mirror; but this is objectionable on account of the varying focal distance from the reflected surface of the parts thus reflected; for it exaggerates the image in the centre of the mirror, while it so distorts the image of parts mirrored near its margins as to render useless any deduction drawn from such reflection. Turck endeavored to magnify the image by attaching a magnifying lens behind the central perforation of the reflector; he also used strong convex spectacle glasses; and subsequently arranged a small Galilean telescope on a separate arm attached to the stand of his reflector, so that the objective could be used behind the perforation, or brought to the edge, a small notch being cut from the margin to allow the glass to be kept within its circumference. By means of the arm carrying the magnifier, the instrument could be readily placed in the proper axis. Voltolini made similar experiments, using an opera-glass from which he had removed the ocular; and he also adapted a small telescope, but reports that he could obtain satisfactory results only by sunlight; and that even then it was necessary to have the head of the patient firmly held in a stationary position. Semeleder, in commenting upon these magnifiers, very justly remarks, that he cannot admit of the necessity for such an apparatus, or even its usefulness; for alterations so slight as not to be detected with the unaided eye, or with the employment of ordinary spectacles, can hardly cause sufficient discomfort to give occasion to an examination.

To increase the extent of image reflected, double mirrors (Czermak) are sometimes employed; in which a smaller mirror is attached by a short shank to the ordinary laryngeal mirror, at such an angle in front of it that the image of parts reflected on its surface, when in position, shall be again mirrored in the larger one. For viewing special individual parts, particularly of the posterior wall, which cannot be well seen by the simpler method, these mirrors are applicable; but considerable practical experience becomes necessary to render them useful; for the image of the second mirror, with its contents, appears on the first mirror, these contents being doubly reflected; while at the same time, in the same mirror, receiving this second doubly-inverted image, is also depicted the singly-inverted image of the parts reflected upon it. It requires some facility of abstraction to fully comprehend this arrangement, and compare the two images, reducing them in the mind so as to secure a clear conception of the natural relations of the structures in their entirety.

Another form of double mirror consists of an ordinary rectangular mirror, with a narrow strip of mirror adjusted at its side at an obtuse angle (Wertheim), and secured in the same setting, which is then broader than it is long, thus securing an increase of reflecting surface. Voltolini speaks of angular mirrors, two laryngeal mirrors close together at an angle, which he employs when the epiglottis cannot be well raised from the laryngeal aperture; in which case, one mirror is intended to be placed under the epiglottis; but his efforts in this direction, however, have not been very successful.

It was at one time thought desirable (Mandl) to scratch a graduated scale across the surface of the laryngeal mirror, sometimes in one direction and sometimes in others, with a view of measuring accurately the size of the various structures reflected. This diminishes the reflecting power of the mirror, scattering the rays along the line of the scale, rendering the image indistinct at these points; and it may sometimes happen that the scale may render the image imperfect at the very point desirable to be discerned clearly. For practical purposes, the eye should be trained to judge unaided of the relative size of portions of the image. For detailed and minute investigations into the physiology of the mechanism of vocalization and kindred subjects, such a scale may be desirable; but even then, in accordance with the suggestion of Semeleder, the scale might just as well be scratched upon the margin.

There is a second method of examining the interior of the larynx, exceedingly artistic in conception and beautiful in execution, but unsatisfactory for practical surgical purposes. This is called *translumination*, or *illumination by transparency.* It was first practised by Czermak, and takes advantage of the interspace existing between the delicate sterno-hyoid muscles covering the anterior portion of the larynx. A laryngeal mirror is introduced into the pharynx, and the light is concentrated exteriorly upon the skin covering the larynx, instead of being directed into the mouth. The result is satisfactory only where the neck is long and the tissues thin; and then, only such parts of the larynx can be illumined in this manner as consist of membranous structure; as the thyro-hyoid membrane, and the middle cricoid ligament.

The interior is thus brightened by a translucent ruby glimmer, shading off as do the margins of the fingers when we look at sunlight through them; and the vocal cords and other transparent tissues can be faintly discerned. As a refinement of the art, a demonstration of this kind produces a charming optical effect; but there is no practical advantage to laryngoscopy to be derived from this method of translumination.

In the Examination of the Patient, the operator must occupy a position directly in front of the person to be examined.

Where the sun is shining brightly; it is sufficient to place the individual with his face towards the light, so that the back of the pharynx is brought distinctly into view; and then to introduce the mirror while the patient is making an inspiration. It is in these cases, where direct sunlight can be employed, that *the simple laryngeal mirror is the only instrument absolutely necessary* for the successful performance of laryngoscopy. If from any cause such a position is inconvenient or unattainable, the patient may be placed with his back or the side of his body towards the sun, and the light be reflected into the pharynx from the observer's forehead, or from a mirror held in the hand, or attached to a stand. When the direct rays of the sun are thus employed, the reflector need not be concave; but when the diffused daylight of a room is used, a concave reflector becomes necessary. In using a concave reflector, care must be taken that the rays be not concentrated in a focus in the throat of the patient; and this remark is also applicable to the use of the reflector by artificial

light. The best mode of examining the larynx by sunlight has been found (G. Johnson), "to place a looking-glass in such a position that it shall deflect the sun's rays on the frontal reflector, but leave the eyes of the operator in the shade. In this way we avoid the serious inconvenience which results from exposing the eyes to the direct rays of the sun. Both the patient and the operator are in the shade, a column of light being turned upon the frontal reflector by the looking-glass." The frontal reflector is of advantage in these examinations, on account of the facility with which the direction of the light can be altered as the time of day advances, when a heliostat is not employed.

For the consulting-room it is well for the patient's seat, as well as the seat of the operator, to be provided with a screw, so that it can be arranged to any desired height. The piano-stool, where they have it, furnishes such a seat at the patient's residence. It is sometimes an object to support the head in a desired position, especially in the performance of operations within the larynx; and a head-rest similar to that usually employed by the dentist or the photographer, may be attached to the seat, and made capable of being raised or lowered at pleasure; or what appears to be still better, a circular padded ring sloped so as to fit the back part of the head, and secured to a sliding-rod by a ball and socket-joint furnished with a set screw working through the socket, so that the head-rest can be placed in the desired position and retained there (Tobold). Von Bruns employs two rectangular boards joined at a right angle, and so placed that one of them shall receive transversely the back part of the head, and the other support the right cheek of the patient. The apparatus bears a striking resemblance to the hod of the laborer. A dentist's spittoon, or some similar contrivance, should be at hand, and may be conveniently attached to the examination-chair of the patient (Elsberg).

Examined by Artificial Light, *the patient should sit erect, with the head inclined but slightly backwards.* The observer should face him at a proper distance for distinct vision of the pharynx, at the spot where the laryngeal mirror is to be applied.

If the examination is made during the daytime, the room should be darkened, but it is unnecessary to carefully exclude every particle of light. A lamp or gas-light, capable of being elevated or lowered at pleasure, should be placed at the side of the patient on a table of convenient height, so that the flame should be on a level with the ear, and a little behind. The reflector being arranged in front of the lamp at its proper focal distance, the observer should so regulate his own position that his eyes will be on the same plane as the mouth of the patient. When the light annoys the patient, or heats his face too much, it may be protected by a hand-screen, a fan, a few sheets of paper, or the fingers of the hand nearest the light. Turning the patient's head slightly inwards, and towards the lamp, a disc of light should be thrown from the reflector over his lips, so that when the mouth is opened, the posterior wall of the pharynx just below the base of the uvula will be at the near point of vision. The most favorable position for the head of the patient will be, in the majority of cases, when the lower border of the upper incisor teeth is on a horizontal plane with the line of union of hard and soft palate. The mouth should be widely opened, and the tongue thrust forward with some muscular force; its body lying on the floor of the mouth, and its posterior portion and base as much hollowed as possible. It may be extended in a straight line, or slightly inclined to the side furthest from the light. The patient should breathe rather deeply, but quietly, and without effort. It will be found of advantage to instruct him pleasantly as to the mode of procedure about to be employed; which procedure should be as gentle as possible; and the objects to be accomplished should be explained, in order to acquire his confidence; while, if sufficiently intelligent, it will be of service to place in his grasp a hand mirror, that he may watch for himself the manipulation of the operator, and see its results. This interests him, occupies his mind, and enables him to perceive that there is no danger of his suffering injury, and will be found an extremely useful method of allaying nervousness, and its effects on the irritability of the fauces.

The next thing to be done is *to introduce the laryngeal mirror.* As the reflecting surface of the mirror would become sullied by the halitus of the breath, from condensation of moisture upon its cool surface, it should be warmed or otherwise prepared before introduction. It may be warmed by simply holding it in the mouth a few minutes before proceeding with the examination (Watson); or it may be plunged into warm water; or it may heated over the lamp used for illumination, or over a small spirit-lamp kept for that special purpose. By warming the reflecting surface, the mounting which comes in contact with the tissues will not be so apt to burn the patient. And here it is necessary to utter a word of caution to beginners in this art.

It is customary for the examiner to test the warmth of the mirror, which should be brought to about blood-heat, upon his own hand, lip, or cheeks, before introducing it within the mouth of the patient. Notwithstanding this, there is great risk of allowing the mirror to become too hot, and thus burning the uvula of the patient when cauterization is unnecessary. The writer is indebted to Dr. Elsberg, of New York, for an excellent rule by which to judge when the mirror has received a proper degree of warmth. If a cold mirror is placed over a flame, moisture appears on its surface directly, and is gradually evaporated from its circumference towards the centre. As soon as the mirror clears, it is ready for use, having acquired a proper temperature. If the mirror is not well made, the heat will, after a while, affect the coating and destroy its reflecting power; and this is particularly the case with quick-silvered mirrors, which are thus soon rendered unfit for use.

Hot water, too, will gradually insinuate itself beneath the glass, and with a similar effect. A great deal of care is therefore required to learn the proper amount of heat necessary to retain the mirror undimmed during the examination. The rule given above, to watch for the disappearance of condensation, will be found highly satisfactory in practice. Further, the process of heating the mirror sometimes alarms timid patients, creating a nervousness which makes them dread the introduction, and strongly object to it. In these cases some other method of preparing the mirror is highly desirable. Dr. Buzzard, in a letter published in the *London Lancet* (American reprint for August, 1864), writes: "The dimming of the mirror arises, I suppose, from the deposit upon it of very minute globules of water, which, from their more or less spheroidal shape, scatter the rays in various directions, in place of allowing a right reflection. It occurred to me that a smooth layer of transparent liquid applied to the glass would at once absorb the watery vapor falling upon it, and thus prevent the dispersion of rays from this cause. I was not disappointed upon trying the experiment. Many liquids will answer the purpose, but the best which I have met with is glycerine diluted with an equal part of water. A drop or two of this should be allowed to fall upon the mirror (not heated), and to spread evenly

over its surface, just as the collodion is applied by the photographer. The reflecting power of the mirror is not manifestly interfered with by the presence of the thin and translucent layer; there is no dimming of its surface by the breath, and the application does not require to be repeated during even a long sitting. If care be taken that the coating is very thin, the amount of refraction produced by it is so exceedingly small as to be inappreciable in practice."

Czermak, in 1859, in putting into practice the suggestion of Neudorfer, to examine the inferior surface of the vocal cords, etc., by inserting a mirror through the opening formed by tracheotomy, found that his delicate mirror required to be frequently taken out to be reheated; and he applied successfully a solution of gum-arabic in water, and subsequently a solution of sugar and water, as mentioned in his monograph on the laryngoscope. The writer has frequently employed glycerine, especially when examining by sunlight. His plan is to spread with a camel's-hair pencil a thin film of pure glycerine over a well wiped mirror, and then to dip the mirror thus coated into cold water, shaking off the superabundant liquid, and repeating the process until a clear surface is produced, when the mirror will remain untarnishable by the breath for nearly half an hour. Every time the mirror is withdrawn from the mouth this immersion into cold water is repeated, in order to cleanse it from any mucous or any other secretion which may have adhered to its surface. It is rarely during an examination that the application of the glycerine has to be renewed, though the mirror be withdrawn and again introduced many times. The image appears to be as perfect as with a heated mirror.

Dr. Henry Wright has suggested keeping the mirror at a uniform temperature by means of the electric current; but this method requires a special and costly apparatus, which will prevent its coming into general use. The writer is personally unacquainted with any one in this country who, to his knowledge, has employed this method.

The mirror should not be retained too long in the mouth; it is better, even when the examination has been almost as thorough as had been desired, to re-insert the mirror many times, than to tire the patient by keeping it in position too long, or to excite nervousness and induce irritability; added to which, the saliva which accumulates at the floor of the mouth is sometimes of itself sufficient to excite reflex action. If considerable retching occurs during the course of an examination, it is advisable to forego further efforts at that interview; for although, by dint of perseverance on the part of the operator, seconded by force of will on the part of the patient, subsequent retching may be prevented, the mucous structures will have become so much congested in consequence of the spasmodic muscular action as perhaps to mislead the diagnosis. If considerable spasmodic or vibratile movement of the tongue or adjacent parts is observed in the introduction of the mirror, or during the examination, it is advisable to withdraw the instrument, and be contented for the time with an unsatisfactory result, rather than by attempting too much at first, to compromise subsequent success. When once retching occurs, a slighter disturbance than caused it at first will renew it, and render it troublesome to overcome; but if the examiner succeeds in producing no more irritation than the patient can overcome in his first effort, the confidence of the patient in his own powers of self-control will enable the parts to endure a much greater amount of manipulation than they could have withstood at first.

LOCAL ANÆSTHESIA.

By WILLIAM R. WHITEHEAD, M.D.,

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The attempt to substitute local for general anæsthesia in extensive surgical operations, offers the attraction of novelty, and the inviting advantage of avoiding the occasionally fatal accidents resulting from the inhalation of chloroform. The attention recently accorded to the efforts of Richardson, of London, to introduce to the favorable notice of the profession local anæsthesia by means of ether spray, will sanction a review of the relative merits of local anæsthetics.

From the most remote periods attempts have been made to produce local insensibility to the pain of surgical operations. Narcotics were topically employed by the ancients with discouraging results. During the last century compression was greatly extolled; but the constriction of a limb by tight cords to lessen the pain of an amputation was as inefficient as it was inconceivably barbarous. Arnott, in England, rendered temporarily popular a freezing mixture of salt and ice. I have seen this application made by Velpeau, for the avulsion of toe-nails; and the pain which it occasioned was intense. The cold produced by the rapid evaporation of ether induced Guérard, about 1854, to cause to be constructed by Mathieu,* an instrument provided with a small syringe, which should project ether in a continuously fine jet upon any part where it was desired to lessen or abolish sensibility. Hardy, of Dublin, in 1853, recommended the evaporation of chloroform as a local anæsthetic.

Follin and Leconte, several years ago (Bulletins de la Societé de Chirurgie), instituted a series of experiments to produce local anæsthesia.

By projecting a jet of ether on the skin, they produced insensibility of the part in less than a minute; and froze water in a small glass tube in less than two minutes. Great pain attended the application of the freezing mixture of salt and ice; and they further established that the complete anæsthetic effects which they obtained were in both cases due entirely to the congelation of the tissues. The success of these experiments caused ether sometimes to be used locally for minor operations, when the incisions were few, and involved only the integument. But the application of ether topically has unquestionably been greatly facilitated by the use of spray instruments; and if Richardson did not, a few years ago, meet with encouraging success in his endeavor to produce local anæsthesia by electricity, his adaptation of a nebulizer to the use of ether, though only an improvement on the method of Guérard, is productive of results that may retain this means of local anæsthesia among the recognised remedial agents which are exceptionally useful. In some of the recorded cases of success, as in the ovariotomy case of Spencer Wells, it was found necessary to administer chloroform to complete the operation; and furthermore, the experience of surgeons has not been confirmatory of the high encomiums lavished on ether spray in surgical operations of magnitude. I have recently used it in a plastic operation on a gentleman of this city, who had the choice of ether by inhalation or applied locally; chemically pure ether was used and applied by skilful hands. As the operation was performed by a few rapid incisions, and my object was only to materially diminish the sensibility, congelation of the tissues was not produced.

The impossibility of performing difficult dissections among frozen tissues must necessarily confine within

* Arch. Gén. de Méd., Avril, 1866, p. 499.

restricted limits the indications for this anæsthetic method; and it will be difficult to cause surgeons to abandon the positive benefits of chloroform for the doubtful advantages of local anæsthesia by ether spray. Since the effect is due entirely to the cold produced, I would prefer rhigolene to ether; but reserve it only for minor operations. There is a great variety of spray-producing instruments, and the perplexity in the choice of a suitable instrument can only result from a failure to make simplicity the requisite quality in the selection. Richardson's or Clark's will answer.

In almost any drug-store can be found a little instrument called the "scent distributor," for many years familiarly known to the public, and used for perfuming apartments. This little instrument is the simplest variety of nebulizer, and consists of two glass tubes arranged at right angles to each other. If the smaller tube should be passed through a cork stopper into a small bottle containing ether, and the other glass tube attached to a rubber-pipe connected with two hollow rubber balls at short distances from each other, one used for compressing air, and the other, which is nearest the bottle, as an air-reservoir, we shall have a representation of Bergson's apparatus modified by Clark.

Original Lectures.

CLINICAL LECTURES

UPON

DISEASES OF THE GENITO-URINARY ORGANS,

DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK,

By W. H. VAN BUREN, M.D.,
PROF. OF ANATOMY, ETC.

Lecture II.

On Traumatic Stricture.

February 20, 1866.

Gentlemen—The patient before you is the carpenter who applied for relief three weeks ago (Jan. 30) with threatened retention of urine from impassable traumatic stricture of the urethra, and who was subjected to the operation of perineal urethrotomy on the first of the present month, *i. e.* twenty days ago. Before examining his present condition, I will read the note of his case:

Jan. 30, 1866.—G. J., twenty-eight, a healthy married man, fell astride of a beam whilst at work, about the middle of December last, with a great deal of force, from a distance of six feet. He suffered much pain at the time, and in two hours his scrotum and penis were black from effused blood. He passed bloody urine half an hour after the accident, in a thin stream and with much burning pain; and blood continued to ooze freely and spontaneously from the urethra for twelve hours afterwards. At the end of a week he thought himself well, and returned to work, but in a fortnight he had an attack of retention of urine, and his stream has ever since been steadily growing smaller. At present he has almost constant desire to relieve himself, and the urine, with violent straining, comes only in a succession of drops, and has several times stopped entirely. No instrument can be introduced into the bladder; an apparently impassable obstacle existing in the neighborhood of the triangular ligament. On several occasions, when suffering from retention, catheterization has been unsuccessfully attempted by different surgeons; relief following the use of hot water in bath and fomentations, at a varying interval.

In view of the great danger of retention and extravasation of urine, the operation of perineal urethrotomy was performed by Dr. Gouley, by my advice, on the day but one following.

After the patient was thoroughly etherized, I succeeded in introducing into the bladder a very fine filiform bougie of peculiar construction; and this was employed as a guide in the operation. The stricture, which was exceedingly dense, was freely divided upon a grooved probe longitudinally, in the median line, including a full half inch of the sound urethra in front of it, and the same behind it. A steel sound, No. 17, was then readily passed into the bladder, and shortly afterwards withdrawn, no catheter being left in the bladder. The hæmorrhage was trifling, no vessel requiring a ligature. The structure of the bulb of the urethra, which was involved in the incision, was distinctly observed to be dense, white, and bloodless; evidently obliterated by the inflammation which followed the original injury. The scrotum was supported by a sling bandage, and the patient placed in bed. He had no chill, and his pulse has never exceeded eighty in a minute. His urine was passed, with trifling smarting at first, through both wound and natural outlet. For the first forty-eight hours, in consequence of tumefaction of the edges of the wound, it found its way almost entirely through the urethra, as often occurs after the operation of lithotomy. Subsequently, on the establishment of suppuration in the wound, the greater part of the urine escaped through it. About the middle of the second week, the wound, which was covered by healthy granulations, began to contract, so that the urine flowed in larger proportion through the urethra. This proportion gradually augmented, so that by the middle of the third week none whatever escaped through the wound, and at present, on the twentieth day, as he shows you, there is nothing left of the wound but a narrow ridge of healthy granulations two lines broad and about an inch in length. The steel sound, No. 17, was not reintroduced until the fifth day after the operation; and it has been passed every second day since. You see now that it passes readily into the bladder.

You have before you, therefore, another successful example of the operation which I have recommended to you as the best and safest method of cure for traumatic stricture of serious character; and before completing what I have to say in reference to the details of the operation, I will ask your attention to one or two points of interest in the case as just narrated, which, I trust, may have already attracted your attention.

You will have noticed that after the patient had been etherized, and before he had been placed in position for the operation, I succeeded in introducing a fine bougie through the stricture into the bladder; a measure of great importance in facilitating the subsequent steps of the operation, and which, in my judgment, should always be attempted, just as it was done here, after the administration of the ether and before the use of the knife. It is a proceeding analogous to the final attempt to reduce a strangulated hernia by the taxis, after full relaxation has been brought about by the anæsthetic, and before the commencement of the operation. You may ask—Why was this not attempted before? and, when the instrument was got in, Why was not this success accepted as evidence that the case might be amenable to treatment by dilatation, and the cutting operation deferred? I will answer the latter question first: Because experience has taught us the

truth of Civiale's opinion, already quoted, that bad traumatic strictures are not curable by dilatation, and that their best remedy is incision from the perinæum. For these reasons this operation had been decided upon; and this being understood, earlier attempts to pass fine bougies might have provoked complete retention of urine, which is often the case, and thus have precipitated the necessity of performing the perineal operation under circumstances less favorable for its success.

I wish you to observe that the operation would have been performed in this case even if the attempt to introduce a fine bougie had failed; as Dr. Gouley and I had agreed that the safety of the patient and the requirements of sound surgery demanded it. The presence of the bougie as a guide through the dense stricture, simply rendered the operation less difficult and more certain in its accomplishment; perineal urethrotomy, without a guide, being justly recognised by all practical surgeons as an operation of very great difficulty, although in some cases it cannot be avoided. You should use every effort, therefore, to secure a guide to the bladder by employing the instruments best calculated to insure your success; and for this purpose I can recommend this delicate French bougie, which has been successful in both the cases recently subjected to operation. Besides its tapering point and extreme slenderness, its size being less than No. $\frac{1}{2}$ of the ordinary scale, it is saved from being too flexible and thread-like by the presence in its interior of a delicate fibre of whalebone, which gives it just the right amount of firmness. I think the use of these bougies will be more likely to save you from the unpleasant necessity of undertaking to find and divide an almost obliterated urethra from the perinæum than any other surgical resource at your command; and, of course, they are also useful for cases of stricture amenable to dilatation. I met with them as a novelty last summer in Paris; they are made by an instrument-maker named Benas, and Tiemann of this city has promised to import them.

I would ask your attention to another feature in the treatment of this case, viz. the size of the steel sound passed into the bladder through the divided stricture at the time of the operation, and which you have just seen introduced by Dr. Gouley. It is No. 17 of the English scale, which is the standard usually adopted in New York; and I have no doubt it seems to you a very large instrument. It is in fact very nearly half an inch in diameter, but not so large, as you perceive, as this cast of the urethra which I place beside it, and which represents the normal calibre of the canal. To be more accurate, the sound is three-eighths of an inch in diameter; whilst that of the urethra, as I have recently demonstrated to you, exceeds this measurement, reaching at several points half an inch, or even more. Moreover, it passes through the orifice of the urethra without pain or stretching; and this, as you know, is the narrowest point in the canal. I emphasize this point of practice because I believe that the diameter and capacity of dilatation of the urethral canal are generally underrated; and experience has taught me that the employment of steel sounds of the largest diameter which the urethra will admit, without painful distension of its healthy portions, affords the best chance of curing strictures without danger of relapse. This is especially true in reference to ordinary strictures following gonorrhœa, for which the proper treatment is dilatation; and here I am confident that more thorough dilatation, with sounds of larger size than those generally employed, would render relapse and recontraction of less frequent occurrence. The urethral orifice must be your gauge in the majority of cases; and this usually ranges from No. 12 to No. 16. In the patient before you, No. 17 was readily admitted; and I meet with urethras, not unfrequently, which will receive No. 18. Sometimes the orifice is normally smaller; and here, when necessity requires it, you have high authority for enlarging it by incisions. Guthrie, Civiale, and Thomson, advise this course. Remember that you should not attempt to *stretch* the urethral orifice; it is not only the narrowest point in the canal, but the most undilatable.

And now let me complete the description of the operation. Your patient should be placed upon a stout table of moderate size, in the position for lithotomy, with his perinæum previously shaved, and exposed to a good light. The height of the table should be not less than thirty-two inches, so that you can sit conveniently between the patient's legs. Ether should have been thoroughly administered, and its management committed to a trustworthy assistant. By means of an enema of tepid water the large bowel should have been completely evacuated. I assume that the introduction of a bougie, as a guide, has already been accomplished; by the aid of injection of warm sweet oil into the urethra, and employing the delicate instruments I have already described, with tact and perseverance you will rarely fail in this important procedure. A curved staff, with its groove extending flush to its extremity, is then to be carried down to the stricture and held in contact with it by an asssitant, who also holds up the serotum; the fine bougie occupies the groove of the staff. You proceed in the next place, with an ordinary scalpel, to make an incision as accurately as possible in the median line of the perinæum, commencing above over the extremity of the grooved staff, and terminating below about half an inch from the margin of the anus. This is to be carried through the subcutaneous connective tissue, the muscular fascia, the accelerator urinæ muscle, and the urethral walls, at the upper extremity of the incision, into the groove of the staff —taking especial care to keep accurately in the median line, and not to cut the bougie which occupies the groove of the staff, and which now comes in sight. You now require a silver probe of ordinary size, grooved on one side for one half its length, and tapering throughout its remaining half to a very delicate extremity, which terminates in a minute bulb. Withdrawing the grooved staff a little, you manipulate with the bougie, drawing its distal end out through the wound, and bringing into view as clearly as possible the orifice of the stricture in which it is lodged. By gently pushing the bougie to and fro through the stricture you can hardly fail to introduce the bulbous point of the silver probe alongside of it; and then pushing it onwards into the bladder, you engage its grooved portion in the stricture, and turning the groove towards the surface of the perinæum, by the use of a small curved sharp-pointed bistoury inserted along the groove, you divide the stricture carefully and thoroughly, and extend your incision fully half an inch into the uncontracted urethra beyond. An ordinary large director, or a female catheter passed through the divided stricture into the bladder, will now usually demonstrate, by the flow of urine, the completion of the operation; and, the urethra having been already sufficiently divided in front of the stricture, you should be able to introduce as large a steel sound as its orifice will admit through the urethra, and guide it past the wound into the bladder. If you encounter any obstruction whatever in the neighborhood of the recently divided stricture, you should seek out its cause, and at once remove it, if necessary, by further incision. It is well to remove the sound and reintroduce it several times, so as to become familiar with any peculiarities attending its introduc-

tion, and this will obviate any future difficulty in passing it. In regard to hæmorrhage, in the majority of cases there is no vessel requiring a ligature. If there should be troublesome oozing from the bulb, apply thoroughly to the bleeding surfaces Squibb's Solution of Persulphate of Iron, undiluted; I have often employed it, and find it both safe and sure. It only remains now to support the scrotum by a sling bandage, withdraw the sound, and convey the patient to his bed, which should be prepared with a folded sheet and india-rubber cloth beneath the buttocks.

The after-treatment consists in careful watching, simple feeding, and the introduction of the sound at appropriate intervals, as already indicated. Hæmorrhage, which sometimes occurs, is to be met (in case no bleeding vessel can be found and tied) by persulphate of iron, cold, and pressure—so applied as not to impede the flow of urine.

The dangers of this operation depend upon the conditions which necessitate its performance, rather than upon the proceeding itself. If, as is always to be desired, its necessity has been foreseen, and time secured for examination of internal organs, and ample preparation, the danger is trivial; but if, on the contrary, as often happens in Hospital practice, the patient falls into the surgeon's hands with prolonged retention or extravasation of urine, from recklessness and neglect, the result of the operation is likely to be much less favorable. And if, in addition to these serious complications, the stricture should prove to be impassable, and the operation is necessarily undertaken without any guide to the bladder, it becomes one of the most difficult and uncertain proceedings of surgery. The alternative of puncture of the bladder from the rectum, or above the pubes, may in rare cases be adopted from necessity; but these measures afford only temporary respite, inasmuch as they leave the stricture, the cause of all the trouble, unrelieved.

The operation I have thus described to you is equally applicable to cases of threatened or existing retention, or extravasation of urine from stricture following gonorrhœa, as to those of traumatic origin; and it presents this great advantage over all other surgical resources employed in this emergency, that it not only relieves the retention and averts its immediate consequences, but offers at the same time the best chance of cure for the stricture itself.

This operation is called by various names; in France it is best known by the old-fashioned and somewhat trifling name of *boutonnière*, or button-hole—from the shape of the perineal wound; English authors denominate it the *perineal section*. As this title has been monopolized of late by Syme's operation, Mr. Thomson, in his work on stricture—which I recommend to you as the best monograph on this subject in our language—proposes to designate this latter proceeding as "*external incision.*" I think the best name for it—one that is neither obscure nor incorrect—is that employed by Civiale: "perineal urethrotomy—with a guide, or without a guide." The former includes Syme's operation as one of its varieties; and the latter is identical with the old English *perineal section* and the French *boutonnière*.

And here I ought to explain to you just what is meant by "Syme's operation." Heretofore it has been accepted as an established canon of surgery *that division of the urethra from the perinæum is only justifiable in cases of stricture impassable by instruments.* Mr. Syme, Prof. of Surgery in the Edinburgh University, and whom I regard as one of the greatest living operators, in the year 1844 disputed this canon, asserting that in *intractable and "resilient" strictures which resist treatment by dilatation, even though still passable by instruments, section by the knife, from without, offers the most speedy, safe, and certain cure.* And he asserted also, pretty roundly, that there was (to him) no such thing as an impassable stricture; thereby bringing all cases of urethral obstruction, not curable by dilatation, within the scope of his proposed new operation. He has published a large number of successful cases to substantiate this new doctrine; but unhappily so much controversy and personal feeling have attended its promulgation, that its real scientific value has been obscured, and its general acceptance by surgeons has been retarded by this complication, which in matters of pure science is always to be deprecated.

You have already inferred that I accept Mr. Syme's views as correct; and I may add that I believe, with him, that really impassable strictures are rare. But in regard to his mode of operating I feel more hesitation in recommending you to adopt it. He introduces this slender grooved staff, No. 1 of the catheter scale, with a shoulder three inches from its extremity, and incises the stricture upon its groove. This instrument was made in Edinburgh; observe its slender point, and its large, defective curve—so different from that of the fixed portion of the urethra which I have demonstrated to you. After what I have told you of the dangers attending the use of slender steel instruments in the urethra, and of this shallow curve, which renders it almost impossible to keep its point in contact with the roof of the canal, you can understand how easily by its use a false passage might be made—as in the specimen I showed you yesterday from the dissecting-room, and you can see why I advise you to employ a bougie, in preference, as a guide. The operation I have just described to you may not be quite so brilliant or easy in its performance; but I am confident you will find it safer and more generally applicable.

There is another mode of treating obstinate strictures which has been much employed of late in England, and which promises to rival the operation of Mr. Syme, and that is the sudden dilatation, or, to speak more correctly, the laceration or tearing off the stricture by means of the instrument invented by Mr. Barnard Holt of the Westminster Hospital, of London. It consists of two metallic strips, with a central hollow stilet, all united at the beak, and forming a delicate curved sound about the size of a No. 4 catheter. After its introduction through the stricture into the bladder, as demonstrated by the escape of a few drops of urine through the stilet, this hollow tube, slightly curved at its extremity, is fitted upon the stilet and suddenly driven home, producing a longitudinal laceration of the stricture. The instrument is then withdrawn and a No. 12 catheter readily passed into the bladder. Mr. Holt kindly showed me the operation on two patients during my visit to London last summer, and the result was highly satisfactory. He asserts, from an experience of some 250 cases, that it is safe and effectual; recontraction occurring much less frequently than after dilatation, as usually practised. The idea of thus lacerating the urethra is not a pleasant one; but from what I have seen of the practice, I should judge that it is worthy of trial; and that it is especially applicable to cases occurring in hospitals, where the process of dilatation is so often tedious and unsatisfactory in its results. For the cure of traumatic stricture, however, I am not prepared to recommend this process, although Mr. Holt reports a case in which he employed it successfully. The cicatricial tissue outside of the urethral mucous membrane in a traumatic stricture would be less likely to recontract after free division by the knife, it seems to me, than after laceration, even though thoroughly effected.

I trust, gentlemen, that I have succeeded in impressing you with the idea that stricture of the urethra,

caused by injury of the perinæum, is a very serious surgical disease; more dangerous to life than stricture occurring in the ordinary way, inasmuch as it brings about so much more rapidly the very grave consequences which inevitably follow unrelieved obstruction to the free escape of the urine; and that these consequences are only to be averted by prompt and intelligent surgical treatment. Do not understand me as asserting that the operation I have described to you is necessary in all cases of this kind; or that the use of bougies and sounds for the purpose of dilatation is not occasionally successful. But I should mislead you if I did not state to you emphatically that these latter are occasional or exceptional cases; and that it will become your duty, in the great majority of traumatic strictures that you may encounter, to employ the more thorough surgical measures you have seen successfully applied in the cases we have studied together.

I cannot better close these remarks than by detailing to you the particulars of a very intelligently and honestly recorded hospital case which occurred fifteen years ago, and which exhibits very graphically the progress and fatal result, with the appearances seen on dissection, of a neglected traumatic stricture.

—— ——, ætat. thirty, admitted with retention of urine from stricture of the urethra, resulting from a fall astride a beam six months previously. On attempting to pass water some little time after the receipt of the injury, "he found that a considerable amount of blood had already escaped from his urethra, and his urine came with pain and smarting, and was highly colored by blood. By the next morning swelling and ecchymosis of the perinæum and scrotum had taken place, and he was unable to pass his water at all," and a catheter was introduced. The oozing of blood from the urethra continued for several days, and was afterwards mingled with pus. Subsequently pain and impediment were recognised in urinating, but no further retention occurred, although the stream has been steadily growing smaller until the time of admission, when "it comes from him in drops, and is only passed by a violent effort." There is noted also "a slight thickening of the tissues along the course of the urethra in the perinæum, not tender on pressure." No instrument could be got into his bladder; a chill followed each effort, and finally fever, with a brown tongue, diarrhœa, thirst, and nausea. Two weeks later, no relief having been afforded, "he is prostrate, failing very rapidly, pulse very feeble;" the urine occasionally dribbling from him involuntarily. Still later, "hiccough for four or five hours without intermission; urine turbid and tinged with blood, and passes altogether involuntarily." On the twenty-second day after admission he died, no means having been employed to relieve his bladder.

On *post-mortem* examination, the kidneys were found enlarged nearly one-third beyond the normal size, soft, flabby, and intensely congested, mottled with darker patches and spots, and with numerous small abscesses in their cortical substance near the periphery, and in fact "throughout the whole substance of the organs." Ureters vascular; bladder very much contracted, "containing ℥ ij." of reddish, opaque, cloudy urine;" its walls half an inch in thickness; drops of sanious pus oozing from numerous points of the surface of its mucous membrane, which, by the aid of the probe, were found to lead into small abscesses seated in the walls of the organ. Numerous abscesses also existed in the substance of the prostate gland. Immediately behind the bulb of the urethra—*i. e.* in its membranous portion—was seated the stricture, "about four lines in length, and would admit a small instrument." Just behind it, in the floor of the urethra, was a circular opening of three lines in diameter, with rounded puckered edges, leading into a cavity situated in the perinæum, and capable of containing a good-sized hickory-nut.

By referring to the works of Rayer, Brodie, or Wilks (Pathological Anatomy), you will be satisfied that the lesions observed in this case were due directly to the stricture, which, by obstructing the escape of the urine, gave rise to an inflammation involving the whole track of the urinary mucous membrane, and extending to its subjacent tissues; and which, finally invading the secreting structure of the kidneys, arrested the function of these vital organs, and thus caused death. There was no pyæmia in this case. The man was in good health when the injury befel him which caused the fatal stricture; and the period intervening between the injury and his death was only six months. This is not a unique case. I have records of several similar ones. I lap it before you as an example of a result which may be anticipated in any severe case of traumatic stricture, or in fact in any case of serious organic stricture; a result which is to be averted by the employment of prompt and effectual measures to restore a free passage for the urinary secretion.

Reports of Hospitals.

BELLEVUE HOSPITAL.

PROF. F. H. HAMILTON'S CLINICS.

I. Epithelioma and Caries of Calcaneum. II. Cleft Palate.

Saturday, 13th January, 1866.

I. *Epithelioma and Caries of Calcaneum: Amputation.*—Ann H——, æt. 60 (probably), Irish domestic, admitted January 6. The affection began in childhood as a small tubercle upon the integument of the right heel (an unusual site for epithelioma), which persisted and finally ulcerated. The ulcer has continued many years, showing no inclination to close, but steadily progressing, until you see it now about two inches and one-half in diameter, and nearly circular. Its surface is pale, red, and irregularly excavated; its edges are irregular, elevated, and everted. It is probable that the os calcis is involved. The patient is otherwise apparently well.

Epithelioma is commonly accounted a local affection. So it is in a certain sense; but, as in the great majority of so-called local affections which resist treatment, its persistency has a constitutional cause. The simple fact that such a lesion does not heal spontaneously, is evidence, in most cases, of some fault of the system. A slight scratch may, in a feeble old man, become an ulcer from lack of constitutional reparative power. An irritation of the conjunctiva, which in your case or mine would occasion but a few hours' annoyance, becomes in the scrofulous woman, or the man of intemperate habits, a tedious chronic ophthalmia. I believe hospital gangrene to be an illustration of the same thing. It is a local poison, engrafted upon a constitutional fault. Clearly all attempts at treating affections of this kind as purely local will be abortive. It is from ignoring this important principle that specialists often fail. The oculist, aurist, obstetrician, must know the whole body, as well as that part of it to which he is specially devoted. In this woman, then, we must assume some cachexia; but as the general system shows no signs of it, I have hope that the disease may be so far a local one as not to return if the affected parts be thoroughly re-

moved. Were it scirrhus, I should be quite certain of its reproduction.

For the removal of such lesions of tissue as epithelioma we may employ either caustics or the knife. The former will extirpate the morbid tissue as effectually as the latter, but after their use the cicatrization will be slow; and, bearing ever in mind the constitutional fault, you will see that this tardy cicatrization increases greatly the chances of a return of the disease during the healing process. And if this be escaped, the feebly vitalized cicatricial tissue will still be prone to take on the morbid action; and as it contracts, becomes tense, and perhaps cracks open, this result will be almost insured. If, on the other hand, the affected part be cleanly cut out, sound skin may be transplanted and cover the wound, by which it will be closed in speedily, and all these sources of danger will be avoided. It is to this transplantation alone that I attribute the greater success of excision.

In the present case a plastic operation would be difficult; and, moreover, the calcaneum is probably carious, which would render it valueless. Resection of this bone would be open to all the objections urged against caustics. A modification of Syme's operation might possibly be made, taking the flap from the dorsum of the foot; but I doubt if the tissues, from which the flap must be made, are sufficiently healthy. I have therefore, upon consultation, decided to amputate above the malleoli; and I think the woman's general condition gives her a fair prospect of recovery. I shall not make the double flap operation which you have just seen so beautifully performed upon the thigh by Dr. Wood,—first, because that is not well adapted to the lower third of the leg; and secondly, because the circular will expose less surface.

You will recall the double amputation of the arms made by me a few weeks since. The subject was a temperate young man, in full vigor. Both arms had been caught and crushed between two rollers, and both had apparently suffered the same amount of injury. Upon one I performed the circular amputation, and upon the other the flap, the humerus being sawn at the same point in each. The patient died of pyæmia, though his progress for two weeks was so remarkably good that I still think he might have recovered, if, instead of the infected hospital atmosphere, he could have breathed the pure air of a comfortable private house. We observed that the flap stump required twice as many ligatures as the circular, and that it suppurated at least twice as profusely. The extent of union was the same in both. In both humeri osteo-myelitis had taken place; but the microscope confirmed what was apparent to the naked eye, that the disorganization of the medulla was both more extensive and more complete in the former than in the latter. That case would, then, incline us to the circular operation. One case, however, cannot settle the question; though a series of twenty-five or thirty such might go far towards it. But we can never come to any satisfactory decision from the statistics of the two operations as performed upon different persons, where no degree of accuracy in observation can assure us that all the conditions were precisely similar. Until, then, we have data more unquestionable than at present, surgeons will remain at liberty to elect either method. I must confess, however, that I am fully convinced we ought to choose the circular for patients who are old or much enfeebled from any cause. I see present a gentleman who, during his long charge of Armory Square Hospital at Washington, has probably had more experience in amputation than any other surgeon in the war. Will Dr. Bliss give us his views as to which operation has shown the greater number of recoveries?

Dr. Bliss.—I would say most decidedly, Doctor, the circular. This I have observed both in my own and in those field amputations which had endured transportation to the hospital. Entering the war with a strong prejudice in favor of the flap operation, it is only the most unequivocal experience that has led me to give a general preference to the circular.

Dr. Hamilton.—I trust the Medical Bureau may soon give the world the benefit of your experience upon this subject.

Operation. — Patient etherized. — Skin-incision one inch and a half above the malleoli, with a vertical incision along the back; muscles and bones cut three inches higher; three ligatures; flaps left open a short time, then brought together laterally, and confined by sutures. (This patient made a slow, but complete recovery.)

II. *Cleft Palate.*—I present you here a case which would be deemed a fit subject for staphyloraphy. The fissure in the palate is rather narrow, and in the act of swallowing it is nearly closed. This operation was introduced by Roux in 1811, I think, and has been growing in favor, especially within the last fourteen years. I have several times performed it, but with results inferior to those of Dr. Warren of Boston, and Dr. Mutter of Philadelphia, in whose hands, as representatives of American surgery, it has been the most successful. I have concluded that it demands great expertness in the surgeon; that even the most expert must often make several attempts before completing a satisfactory operation; and that when this is accomplished, little or no improvement in the articulation will generally be secured, though to effect this was the chief purpose of the operation.

Operative surgery proving here so inefficient, the field is opened to inventive skill; and a dentist of this city has, after much study, perfected and presented to the profession a most ingenious appliance. Let me introduce to you Dr. Kingsley, who will show you his artificial palate and explain its adjustment.

Dr. Kingsley.—My attention was drawn to this subject six or eight years ago, by the fact that staphyloraphy, where surgically most successful, even to the union of the bifurcated uvula, failed in nearly every instance to remedy or materially to palliate the defects of speech. These are great; for, next to the tongue, the palate is the most important organ of articulation. It is this delicate movable curtain which directs the voice, now through the mouth, and now through the nose. I conceived the reasons why its function is not restored by the operation to be, that the velum thus formed is commonly too short to close the nares, and is at any rate stiff and tense, while its controlling muscles have in most cases been cut away.

The desideratum was an artificial palate, which should be under the control of the palatal muscles, and could be worn without discomfort. Five years ago I had devised the apparatus which met these indications; but it was inconveniently complicated. This which I now show you, in a single piece of flexible rubber, could not be made more simple; it is as readily adjusted and as easily worn as a set of artificial teeth, and, I think, answers perfectly its purpose.

By the aid of this instrument the patient may *learn* to articulate every sound distinctly. No immediate improvement is to be anticipated; for habits formed from birth are to be broken up, and the process of learning to talk must be begun anew, at least with reference to certain vocal elements. This consideration warned me not to be too sanguine of success; but, except in one class of cases, time has proved the result all that could be desired. It is found, moreover, that those who

have once acquired a correct enunciation by the help of this instrument, can, even without it, articulate more clearly than before — dormant powers having been awakened in their training.

In cases complicated with hare-lip the result is less satisfactory; and observation has shown that the chief difficulty is manifested in those where a large open nostril has been left as the consequence of a surgical operation. Where the nostril is small, though a notch may remain in the lip, little trouble is experienced; the compressor nasi, whose office in articulation is not unimportant, being here able to cover the defect.

[Dr. K. proceeded to demonstrate the instrument and exemplify its action, relating also several cases of its application. As he stated that he was about publishing a descriptive paper, these illustrations are here omitted. He described also a contrivance successfully applied to facilitate articulation after staphyloraphy.

Two young men having cleft palate were introduced. One was using the artificial palate of Dr. Kingsley; and the improvement of his voice, tested by introducing and then removing the palate, was very marked. "It is true, however," remarked Dr. Hamilton, "that it is not all, in this respect, which might be desired, and perhaps not all which may hereafter be attained."—*Reporter.*]

Progress of Medical Science.

What Local Anæsthesia may Accomplish.—Dr. Richardson, at the request of the president and members of the Harveian Society of London, made some interesting and suggestive remarks upon local anæsthesia. He gave it as his opinion that the effect of his ether apparatus was probably entirely due to the cold generated by the rapid evaporation of the ether. The action of cold in thus producing insensibility was due, he thought, to the fact that the force of sensation in different parts was brought down by the blood. When we touched a part more motion was produced, and consequently more sensation. When a part was frozen the blood could not supply sufficient heat to keep up the sensation of the part. Nerve force was brought down by every contraction of the heart. As a verification of this view he mentioned that local anæsthesia could be much more rapidly obtained if, whilst cold was applied, the vessels leading to the part were compressed. Thus when the toe-nail is removed, pressure should be made on the anterior tibial artery, and thus we are enabled more rapidly to produce complete absence from pain. With regard to the apparatus required for operation, he generally carried about with him a 3-division bottle having three jets near each other, and all fitting together in a leathern case. By means of this apparatus the operation of Cæsarian section had been painlessly performed, and a tumor in the neck, requiring an incision of seven inches, had been removed by Mr. Adams. When a part is to be frozen it should be previously carefully and perfectly dried; otherwise a film of ice formed, and obstructed anæsthesia. This was the reason of the difficulty in the operations of dentists. In some cases hoar-frost is deposited on the surface of the part; but anæsthesia may be obtained in such cases. If alcohol or chloroform were added to the ether, hoar-frost appeared. The test for the purity of ether consisted in finding whether it would boil when poured into the palm of the hand. This could be ascertained by holding the hand near the ear and listening. One caution he would give—the use of chloroform had introduced a certain carelessness into operations; the operator would sometimes talk when operations were made, which might cause, as he had witnessed, syncope of the patient. Now that anæsthesia was local, solemn silence should be maintained. At first it had been thought that the process was only suitable for small operations: but ovariotomy had now been successfully performed by it four times; amputation of half the foot, too, had been performed; operations for strangulated hernia had also been performed with success three times; something, too, had been added in the last case, since the cold sometimes caused the hernia to become reducible. In Cæsarian section the advantages of the process were enormous. 1. There was no bleeding—a circumstance which used to render the operation extremely hazardous. 2. The cold made the uterus contract. Amputations of the thigh had not been tried. When there was any doubt, chloroform ought to be used; but in cases requiring amputation of the thigh, if cardiac disease was present, he would not hesitate to use it. A single jet did well for a carbuncle. In whitlow the application was most useful; sometimes it will cure the complaint. In the last stage, if the artery of the finger were compressed, and cold frequently used, the complaint could be cured in three days. There was sometimes a little pain felt in applying the spray to the hands and forehead. He had not yet seen sloughing follow on its application. In Bright's disease blistering of the skin was produced. With regard to its use in medical cases, whenever the pain was thoroughly local, freezing would relieve it. In cases of conjunctivitis it had proved of service. He had recently made use of a styptic ether for surgical operations, and had found it of great service; the ether was mixed with xyloidine or starch dissolved in nitric acid. In the case of a young gentleman with a hæmorrhagic diathesis, who had nearly bled to death from the extraction of a molar tooth, he first froze the part and then plugged it by the styptic, so that the bleeding was completely stopped. He believed that use might be made of this application in post-partum hæmorrhage. As to any danger from the use of ether spray in ovariotomy, this was groundless. So volatile was the ether that we cannot even swallow it if we would. He had often asked himself whether this plan might not prove an anæsthetic in labor pains. He believed it would be found to diminish the pains of labor if the spray were allowed to play on the sacrum during the pains. As to tooth-drawing, there was no difficulty in extracting the upper teeth without pain; but in the back and lower teeth there was difficulty, because of the saliva becoming frozen. In one case he had applied cold to the cheek, and had thus caused painless extraction of the teeth.

Dr. Tyler Smith is of the opinion that the external application of ether spray would be of more service in controlling post-partum hæmorrhage than when applied to the uterus itself, especially as there was otherwise great danger of admitting air in the uterine sinuses.—*Dublin Medical Press and Circular.*

Treatment of Itch.—The Prussian military authorities cure itch by smearing the parts with a mixture of two parts of liquid storax with one part of sweet oil. The cure is said to be complete in twenty-four hours.

The Injurious Results of an early Extraction of the Permanent Teeth—Conservative Dentistry.—Dr. A. C. Hawes, of this city, has published in the May number of the *Dental Cosmos* an article entitled "The Injurious Results of an early Extraction of the Permanent Teeth." The writer's object is to inculcate the impropriety of removing, unless in exceedingly rare instances, any of the teeth of the second set for irregularity. He remarks that "by the extraction of a bicuspid or a six-year molar, the whole character and beauty of the

mouth, in all its active and playful motions, may be permanently destroyed; and in the place of the broad, full, and well rounded arch, thickly studded with precious gems, there will remain but a narrow and contracted deformity, almost wedge-shaped, which the most intelligent skill of the dental profession can never restore. What excuse, let me ask, or what recompense can atone to the parent or to the child for the infliction of a life-long injury such as this?"

The second part of the subject, the manner of remedying crowded conditions of the teeth, is, like the first, treated at considerable length. Dr. H., relative to this particular, states that "most of the irregularities of this kind, with the growth of the jaw would gradually correct themselves; and in the rare exceptions where this might not occur, would it not be better to bring *dental skill* to the support of nature, by aiding her to force the teeth into their proper places, thus preserving what is so valuable and necessary for a lifetime, than to inflict a far worse evil by resorting to extraction? That surgeon would hardly be accounted judicious who, in treating an irregularity of any other organ, as a case of strabismus for instance, should proceed to remove an eye because its angle of vision was more convergent or divergent than the other, instead of adjusting the visual axis of the two alike. It is easy enough to destroy nature; but it is the province of intelligence and skill to preserve it."

Results are reported, in conclusion, with plates to illustrate, which convince of the practicability, by mechanical means, under proper management, of correcting in almost all cases defects in the relation of the permanent teeth without resort to extraction.

The Screw Clamp in Hæmorrhoids.—Mr. Henry Smith, F.R.C.S. (*Lancet*), reports thirty-five successful cases of hæmorrhoids treated by his screw clamp, and considers that the good effects of the employment of the instrument in such cases, in connexion with an equal number already published in his Lettsomian lectures, fully warrants him in urging its claims to universal employment. He maintains "that the operation by the clamp is a safer, a less painful, and a quicker method than that by the ligature, for in no case has death occurred, nor in any one instance has anything taken place which caused the least anxiety. Most of the patients have been walking about in a week or less, and in the larger number of cases the after-suffering has been slight."

Deaths by Battle and by Disease.—According to statistical tables, mainly derived from the recent report of the Provost-Marshal-General, it appears that during the progress of the last war we lost, in officers and men, killed and died of wounds, 96,099; and by disease, 184,321; or, altogether, 280,410, out of a total given in these tables at 2,154,311. In the Crimea, of nearly 94,000 English soldiers, 4,419 died by battle, and 16,298 died of disease at the seat of war, while nearly 13,000 more were sent home sick. Thus the English losses by disease were nearly four times those by battle. The French, whose sanitary regulations were much praised, were even worse. They lost 7,500 men by battle, 50,000 by disease—nearly seven times the number of casualties, instead of less than twice, as with us; and 65,000 more were sent home to be discharged as invalids, a considerable proportion of whom no doubt died of their diseases.

In the Mexican war, according to government returns, only 1,548 men died in battle or of wounds, but 12,348 died of disease, and 12,252 were sent home sick. This, owing to inefficient sanitary provisions, was worse even than the Crimean returns.

Among the white troops, it is stated that the proportion of deaths in action and from wounds to the deaths from disease was about as one to two; among the colored troops as one to eight. About 180,000 colored men were enlisted in the army during the war, of whom, accordingly, nearly one out of every seven died of disease. The general proportion among white troops is one to fifteen.

It appears, also, that both from battle and from disease New England sustained the heaviest losses. The fatality of maladies among the troops from this region is ascribed to the fact that an undue proportion of them were used in the unhealthy Atlantic and Gulf States of the South. The men of the West, who rate next, served in the fever-breeding valleys of the Mississippi and its southern tributaries, and this aided no doubt in swelling their mortality list. The troops from the border States suffered mainly from the same cause. All their ratios are higher than the general ratio of the loyal States, which is but 59.22.

These statements, we are informed, are intended to comprise only officers and men who died in the service, and not the tens of thousands who were discharged for disability contracted in the service, from the effect of which they subsequently died in private life.

Vessels and Nerves of Ligaments and Fibro-Cartilages.—M. Sappey, in a memoir recently presented to the French Academy, maintains that the white fibrous tissues and fibro-cartilages, far from being non-vascular, as is generally supposed, contain not only blood-vessels but nerve filaments. He instances the inter-articular cartilages of the knee as those which are most abundantly supplied. After the ligaments and peri-articular cartilages, the tendons and aponeuroses are the next most favored tissues in this category; and last of all come the interarticular fibro-cartilages. He says (*Lancet*) that the vessels run at first nearly parallel with the connective tissue fibres, but soon they divide and subdivide and anastomose, so as to form the most exquisite reticulations and terminate in elegant festoons. The veins follow the course of the arteries. In the fibro-cartilages of the joints the vessels pass from the periphery towards the centre; but they penetrate only to a depth of three or four millimetres. The peri-articular fibro-cartilages, or brusæ, are still more vascular. Both these sets of tissues receive numerous nerves which lie with the vessels, and at others pursue an independent course. The ligaments are also well supplied with vessels and nerves, especially the latter, which are more numerous than those of the skin (!). In the tendons the supply of nerves and vessels is less marked.

Citrate of Soda in Diabetes.—M. Guyot-Danecy, basing his practice upon the theory that diabetes arises from the imperfect combustion of the glucose of the blood, proposes to employ citrate of soda in order to supply the alkaline carbonate which is necessary to the progressive change of the glucose. He substitutes the citrate for the carbonate, because, he says, it does not affect the function of digestion. He administers the salt in doses of from four to eight grammes. His analyses, he alleges, demonstrate that sugar disappears from the urine after the administration of the citrate. Citrate of soda may be mixed with food instead of salt, and with it the use of ordinary bread and starchy matters ceases to be objectionable.—*Lancet.*

Ophthalmia is said to be raging among the women and children of the troops in Meerut.

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New York, August 15, 1866.

THE WILLARD ASYLUM AND THE CHRONIC INSANE.

Two years ago an investigation was ordered by the New York Legislature into the condition of the insane poor in the various county houses scattered throughout the State. Under this law Dr. S. D. WILLARD, as Secretary of the State Medical Society, conducted the inquiry. A vast amount of cruelty and misery was brought to light by the broad, minute, and searching examination thus instituted. Dr. WILLARD's unvarnished and appalling statements startled the Legislators of New York, and the result was a law establishing an asylum for paupers deemed incurably insane. Commissioners were soon after appointed to choose a site and to erect the buildings. They have located the institution at Ovid, and are, we believe, making arrangements to build.

This promptness of legislative action, under the evidence of a great want, commands our warm approval. It is pleasant to find men in power who are quick to feel and quick to act. But neither in private nor in public action is it always safe to follow the first impulses of benevolent emotion. Our Legislators, looking at the vast amount of suffering among the insane paupers of the State, subjected to harsh treatment from the unfeeling officials of the almshouse, thought that they could not do a better thing than to create a grand retreat for their sole use and comfort. In this we think they made a serious mistake. We shall state briefly some of the grounds on which our opinion rests.

In the first place, we cannot think it right to assume that insanity is incurable. Many cases indeed there are, in which the disorder is of life-long duration. The probability of restoration to mental health is, we admit, often exceedingly small; yet reason has sometimes returned after the lapse of many years, and in instances which had long been regarded as hopeless. We know not in how many thousand cases the continuance of disease is due to the lack of skill and care, or to the aggravating effects of positive unkindness. We do know that many disordered minds are more or less conscious of the nature of their malady, and are not without a hope that they will recover? Can we doubt that the existence of such an expectation adds much to the probability of its being realized? Can we afford to dispense with a remedial agent so efficient and valuable? Can we be justified in making any arrangement for the insane, which has a tendency to extinguish in their breasts this last solace?

We see not how any one can doubt that such would be the natural and inevitable tendency of an asylum for incurables. In the regular hospital intended for the cure as well as the relief of insanity, there is always much to encourage the afflicted inmate. Patients are constantly going as well as coming. They are seen to enter in a state of disorder and distress; they are afterwards seen departing happy, and in their right mind. In all this there is a silent moral influence of incalculable value—and this influence would be entirely wanting in a pauper hospital for supposed incurables.

Another serious objection to such an establishment is found in the fact that it is created and opened for paupers only. The very word "pauper" is odious, and all its associations are dreary and repulsive. These poor people have for the most part become poor, not by any fault of theirs, but in consequence of the malady which has thrown them on our hands. Shall we add to the bitterness of their lot by ranking them with the most despised and degraded class in the community? If with some of the insane this would make no difference, there are not a few who are keenly sensitive to such considerations.

But we find a still stronger reason against the establishment of hospitals for insane paupers in their inherent and inevitable tendency to neglect and abuse. The Asylum, which contains patients of every class and condition of life, never ceases to be an object of interest and of care to the community outside. Should abuses creep in, should the managers and employés become selfish and cruel, the facts will come out. Among the friends of these patients who are in comfortable circumstances, there will always be found enough who are willing and able to make the requisite investigations, and to apply the needed corrections. The poorer patients may not be thought of, yet none the less will they share in the benefits resulting from this unofficial supervision.

But in an institution composed wholly of mad paupers, who will look after the friendless inmates, should they be subjected to harsh treatment? The danger that they will be abused is found in this very fact, that they are poor, friendless, and powerless. Do we not know from sad experience that this is the tendency of things in all such establishments? The evil results of such a system might not appear at once. It might be started under good auspices; its first officers might be humane and intelligent men, actuated by an honorable ambition

to achieve success and win approval, and they may resist for a time the dangerous proclivities of their dismal position. But if they do not fall, their successors will. The temptation to a selfish abuse of power will be too strong for weak human nature. We shall be agreeably disappointed if the great pauper mad-house erected to relieve the poor victims of almshouse cruelty, does not itself become in time an intolerable bedlam!

The danger of hard usage on the part of those who are to act as officials in the institution proposed is greatly enhanced by the fact that it is brought forward as an *economical* measure. An asylum like this, it is alleged, will not cost so much to begin with, and will cost less to maintain. Its advocates make much account of the labor which is to be got out of these poor patients. In this way the establishment is to be made, to a great extent, self-supporting. To realize this idea and fulfil these promises, how probable it is that the unfortunate and unfriended inmates will be pushed beyond their strength? Under the predominant purpose of attaining to a pecuniary result that shall be satisfactory, the health and comfort of the paupers are too likely to be regarded as inferior considerations.

If experience is worth anything, if there be any value in the observations and conclusions of those who have seen the most of insanity, both in its capacities and its wants, this idea of a financial advantage is utterly chimerical. This labor question is not new; it has been tried and tested. Attempts to render insane labor a source of pecuniary profit have been made in America under circumstances as favorable as any which are likely hereafter to occur. In no instance could they be called successful. If more has been accomplished in some of the English asylums, it may be ascribed to causes which do not and which cannot exist here: to a less exciting climate, for instance, and to a larger proportion of patients who are already skilled artisans, than can be found anywhere on this side the water.

In any considerable collection of the insane, there are always some patients to whom moderate occupation is useful, if not remedial. Every well planned and well conducted hospital will have a sufficiency of suitable employment for this class of persons, and their labor will do something towards a reduction of expenses. Much more than this, it is in our opinion idle to expect. We are told that there is to be a *saving of expense* in the keeping of these poor folks! Are they to be stinted in the matter of food, clothing, and fire? Is our great, wealthy, and generous State ready to go into so small a business as that of pinching her innocent, needy, and demented children in the quality and quantity of what they eat and drink? Surely to that question the answer which would come up from all her cities, villages, and fertile plains, would be an indignant No! More than any other class of persons, the insane require a nutritious and generous diet.

It might easily be shown that the first cost of buildings for a pauper hospital, and the salaries of its officers and attendants, would not vary much from what is required by institutions which are open to all classes of insane. But for these details we cannot spare the space

The only argument of any weight in favor of especial establishments for the chronic insane is, that they make a desirable separation between those whose malady is supposed to be curable and those whose cases are comparatively hopeless. In every institution for the relief of insanity, the means for effecting such a segregation ought certainly to, and does, exist. The extent to which it should be carried may safely be left to the judgment and care of those who have the immediate management. So far as the classification of cases and the rectifying of errors are concerned, the advantage would clearly be with one asylum rather than with two. We can see nothing that would be gained; we see a great deal that would be lost, by an arbitrary separation of the two classes, and especially by placing them a considerable distance from each other.

With these views of the general question—views held in common with almost all those medical men who have had any experience and responsibility in our American hospitals for the relief of insanity—it is impossible for us to look upon the project of the Willard Asylum as anything less than a great and unfortunate legislative blunder. It is to be regretted as an enterprise which has taken a wrong direction; it is a waste of strength greatly needed elsewhere.

The vast and populous State of New York unquestionably needs more ample provision for its insane. The central institution at Utica, huge as it is, comes very far short of meeting the demand. The recent establishment of the Hudson River Asylum is one good step taken. Similar accommodations must ere long be accorded to the western section of the State; and the time, we trust, is not far distant when, through a judicious distribution of the benefits, these benignant retreats for disordered minds will be sufficiently numerous to receive and to accommodate, without crowding and without exclusion, all who are so unfortunate as to need their aid.

THE STATE MEDICAL SOCIETY OF MICHIGAN.—A meeting of the medical profession of Michigan took place at Detroit June 5, for the purpose of reorganizing the State Medical Society. Dr. C. M. Stockwell, of Port Huron, Michigan, has been elected president. The next meeting will be on the first Wednesday in June, 1867, in Detroit. We notice with pleasure that the Society voted "to sustain by their support and patronage the Detroit Review of Medicine and Pharmacy."

ADULTERATION OF OPIUM.—Landerer states that opium is adulterated in Asia Minor (Turkey opium) with crushed raisins and salep. The former is detected by ascertaining the presence of grape sugar with Barreswil's or other cupro-potassic solution; the latter will be recognised by tincture of iodine showing the reaction of starch.—*The Detroit Review of Medicine and Pharmacy.*

Reviews.

RECENT ADVANCES IN OPHTHALMIC SCIENCE. THE BOYLSTON PRIZE ESSAY FOR 1865. By HENRY W. WILLIAMS, M.D., Ophthalmic Surgeon to the City Hospital, Boston; University Lecturer on Ophthalmic Surgery in Harvard University; Member of the American Ophthalmological Society, etc. Boston: Ticknor & Fields, 1866. Pp. 162.

THIS is a small book, but a very handsome and useful one, three qualities rarely seen combined in medical literature. As is indicated in Dr. Williams's preface, there is a great demand, among the younger portion of the profession at least, for "a work which, without being too elaborate, may assist in acquiring a knowledge of the principles of the ophthalmoscope, and lead to a more correct understanding of the optical powers and functions of the eye." We hope this work will do something at least towards supplying this demand, and that it may take the place of the English dilutions of German works, which have in some way or other acquired the fame of original productions. Dr. Williams is well known to the profession as an earnest, exclusive, and successful worker in the department of science to which this book is devoted, and we may pardon the exultant tone of his first sentence, especially when we stop to think that it is true. "Never, perhaps, in the same period of time have so many and so brilliant advances been made, in any department of medicine, as have been attained within half a generation in the knowledge and treatment of diseases of the eye." Yet we remember how *often* this is said when ophthalmologists have the opportunity, and perhaps wonder if the general profession is not now sufficiently well informed of the fact of the great strides in the progress of modern ophthalmology. All these progressive steps are quite well represented in the volume before us, beginning with the history and theory of the ophthalmoscope, and ending with the anomalies of refraction and accommodation, and their so frequent sequela, convergent and divergent strabismus. The chapter on glaucoma will be especially welcome to those who have relied on the older works for their knowledge of the affection, including as it does quite a fair account of the pathology of this disease, whose successful treatment by iridectomy is one of the triumphs of modern ophthalmology. The different operations for cataract are also fairly and clearly presented. Dr. Williams has placed sutures in the cornea after the flap section, and recommends the plan as tending to favor speedy union. The recent and approved theories as to the accommodation of the eye, as worked out by Professor Donders, are so plainly presented that no practitioner need shrink from the idea of discarding all his old views as to myopia and presbyopia, and getting new ones as to hypermetropia, which latter is a painfully common affection. As to strabismus, we believe, without however any definite knowledge on which to found the opinion, that the practical therapeutical ideas on this subject are still extremely crude. That they are unsatisfactory is generally admitted, and that therefore this subject as presented will not seem as clear as the reader might wish. We are glad that the theory of the ophthalmoscope has been presented accompanied by such handsome illustrations as those which are in this little book; but we wish Dr. Williams had taken pains to teach his readers, in spite of what those specialists may say, who seem to "magnify their office," that it is an instrument whose application is *easily learned*, and which could be far more useful in the hands of every practitioner of medicine who does not absolutely ignore the diseases of the eye, than the microscope for instance, the intelligent use of which must be, for a long time at least, confined to special pathologists and physiologists. This book of Dr. Williams will do good, we believe and hope, in equalizing the knowledge of the profession, and perhaps something towards abating the outcry against "exclusive specialists," when the recent advances in ophthalmic science which have been made by them are noted. It will also, we hope, do something towards enabling the general practitioner to examine with satisfaction some diseases of the organ of vision which he did not before fully comprehend and appreciate. Besides all this, such a book will do quite as much towards harmonizing the unfortunate and unnecessary differences between exclusive specialists and general practitioners (although obviously written with no such idea) as elaborate essays and warm discussions.

IDIOCY: AND ITS TREATMENT BY THE PHYSIOLOGICAL METHOD. By EDWARD SEGUIN, M.D. New York: Wm. Wood & Co., 1866. 8vo. pp. 457.

WE hail the appearance of this work with peculiar satisfaction, not only from the fact that the author has made idiocy a lifelong study, and is recognised both here and in Europe as the highest authority on the subject; but because it is one of surpassing importance, and everywhere commanding the attention of philanthropists and the friends of social science and progress.

We believe that to Dr. Seguin belongs the high credit of first undertaking the education and training of idiots. This was several years previous to 1839, when Dr. Guggenbühl began to study Cretinism; and when the latter opened his School on the Abenberg, in 1842, simultaneously with that of M. Saegert at Berlin, Dr. Seguin had been for several years actively engaged in conducting a school for idiots, and had already published as many as four successive pamphlets on their treatment and education. In 1846, Dr. Kern established a school at Leipsic; soon after, another was opened at Bath, in England; and in 1848, Sir M. Peto, lately so favorably known among us, devoted his own elegant mansion, Essex Hall, Colchester, to the same noble purpose. Scotland opened her first institution in 1852; and in June, 1853, was laid by Prince Albert the corner-stone of the school of Earlswood, Surrey. Nearly all the nations of Europe have since followed these examples.

It was in consequence of the labors of M. Seguin at Bicêtre attracting the attention of our countrymen, George Sumner and Horace Mann, in 1842, then on a visit to Paris, that the first movement was set on foot for improving the condition of idiots in the United States. Massachusetts men, as usual, made the first move; but the Legislature of New York was the first public body that undertook to legislate on the subject. Dr. Backus, of Rochester, introduced a bill to the Senate, at Albany, on the 13th of January, 1846, for the purchase of a site and the erection of suitable buildings for an asylum for idiots; which was not, however, carried out till 1854, when the New York State School for Idiots was permanently established at Syracuse, and Dr. H. B. Wilbur chosen superintendent. In the meantime, October, 1846, the State of Massachusetts opened her experimental school for idiots, under the charge of Dr. S. G. Howe, which has been in successful operation ever since. To Dr. Wilbur, however, belongs the credit of being first in the field; for he had already opened his private institution at Barre in the preceding July. In July, 1851, his school was transferred to Albany, under the patronage of the State of New York; which finally became the present State Institution. In 1852, a private school was opened by Mr. Richards, at Germantown, which soon after was transferred to Media, where it became the "Pennsylvania Training-School for Idiots."

Connecticut and Ohio opened their institutions respectively in 1855 and 1857; Kentucky in 1860; and Illinois in 1865. Thus the United States has eight of these schools, in which nearly one thousand children are constantly in training. This is only a beginning; all the Western and Southern States will probably soon possess similar establishments; and sooner or later, they must be supplied to all our large cities.

The work of Dr. Seguin will hardly admit of analysis or condensation. The Introduction, occupying thirty-six pages, contains a very interesting history of the origin of the methodical treatment of idiots and their congeners, and presents very clearly the philosophical history of the idea of training the functions, and all the faculties as functions, from its germination to its maturation in the school for idiots, and to its actual fitness for the training of all children.

Part I. is taken up with a very able account of Idiocy, which is defined to be "*a specific infirmity of the cranio spinal axis, produced by deficiency of nutrition in utero and in neo-nati.*" Then follows a consideration of its causes, circumstances in which it is produced, endemic idiocy, simple idiocy of central or peripheral origin, pathology, appearance in infancy, motor symptoms, sensorial symptoms, deficiencies of speech and intellect, moral sense, comparison of idiots with their congeners, the protection they need, and lastly, the anthropological discoveries made and expected from the study of idiocy. All these subjects are very ably and satisfactorily discussed, and in a manner to interest all classes of readers.

The "Second Part," treating of the "physiological education of idiots," is equally methodical and satisfactory. The author shows that idiots could not be educated by the methods, nor cured by the treatments practised prior to 1837; but only by the physiological plan since introduced, which consists in the adaptation of the principles of physiology, through physiological means and instruments, to the development of the dynamic, perceptive, reflective, and spontaneous functions of youth

This part, which occupies more than one hundred pages of the work, is wholly taken up with the subject of physical education of idiots; and we venture to say that nowhere in the English language can so valuable an essay on this important subject be found.

This "Part" is followed by a very interesting chapter on the "moral treatment of idiots," which is equally characterized by good sense, philosophical reasoning, and judicious advice.

"Part Fourth" treats of institutions for idiots, giving a history of their establishment; directions in regard to their plan and construction; arrangement of different apartments, as museum, gymnasium, work and exercise rooms, etc. The gifted and philanthropic author then shows how training and teaching may be transferred to the open air, by teaching natural objects, etc. Judicious rules are given for the proper selection of fit subjects for training and education, number of pupils, of attendants, gymnasts, teachers, and superior officers. The duties of superintendent and matron are fully explained; also the subject of proper alimentation is judiciously treated. Lastly, the superintendents of the various schools for idiots are advised to meet annually, to impart to one another the difficulties they have encountered, the results of their experience, and to compare the books containing their orders and regulations.

An "Appendix" of 150 pages closes the work, containing "Remarks, sketches, and partial observations, collected to facilitate the study and illustrate the treatment of idiocy and its congeners."

We close this brief notice, which we purpose ere long to follow with a more detailed account of this truly able and remarkable work, by recommending it as well worthy the perusal of all who take an interest in psychological or physical studies.

Reports of Societies.

NORTHERN MEDICAL ASSOCIATION OF PHILADELPHIA.

MEETING, JUNE 22, 1866.

PROGRESSIVE MUSCULAR ATROPHY—ITS HISTORY—PATHOLOGY—ETIOLOGY—DIAGNOSIS AND THERAPEUTICS.

AT this meeting the subject of cholera was continued, Dr. Robert Burns, of Frankford, reading a paper narrating his personal experience in two epidemics, and the subject was very generally discussed by the members.

DR. ZAREMBA'S paper on progressive muscular atrophy, having been translated from the Latin by Drs. Wittig and Atkinson, was read, and we lay before our readers an exhaustive abstract of its contents.

Literary History.—The first writer on *Progressive Muscular Atrophy* was Dorwall, who recorded three cases, demonstrating their differences from ordinary paralyses. He regarded the disease as the result of primary affection of the peripheric nerves.

Bell and Abercrombie, who follow him, narrate similar cases and maintain a similar opinion.

Cruveilhier dissected the body of a patient dead from this disease, but could discover no notable change in the nervous system. Nevertheless, he believed the disease to arise from a peculiar alteration in the centres, and regarded the absence of proof in his dissections as resulting from imperfect anatomical aids. In 1848, a second dissection led to the same result. He could find no lesion, but adipose degeneration of the muscles, whence he designated the disease as *gradual paralysis of movement by muscular atrophy.*

The next case recorded was by Romberg, who regarded the disease as resulting from an affection of the spinal marrow. No dissection was made in this instance.

Aran, in 1850, presented a new opinion, the result of the study of eleven cases, in one of which an autopsy was made; and although nothing was discovered except the adipose degeneration of the muscles, he maintained the view that the disease is solely confined to the nerves.

Soon after, Thouvenet, an assistant to Cruveilhier, expressed a belief that the disease is a rheumatic affection having its seat in the peripheric nerves.

Then Romberg dissected another case without finding any disease of the nerves, but held to his former opinion.

Edward Meryon advanced an opinion to the contrary, confirming it by dissection in which the nerves appeared perfect; and his view is endorsed by the greater number of writers.

Cruveilhier records a dissection which showed the interior roots of the spinal nerves to have suffered from atrophy, and he therefore suggested this condition as the real cause of the muscular affection. Duchenne, who examined this same case, maintained, on the contrary, that the disease of the muscles was primary, and the degeneration of the nerves secondary.

Schneevogt and Valentiner record a dissection confirming the view of Cruveilhier.

Virchow classes the disease among the neuroses, and regards it as due to a disturbance of nutrition; his

results, differing greatly from the views held previously, are based upon dissection.

Wachsmuth reports sixty cases, agreeing with Aran and Meryon. Of the same opinion are Meyer and Oppenheimer, the latter reporting a dissection which showed complete integrity of the nerves.

Hasse excludes the disease from the true paralyses, and regards it as a muscular trouble solely.

Cruveilhier again opposes all these opinions, maintaining his first belief; having discovered, in two more dissections, that the internal roots of the spinal nerves were atrophied.

A case of Frommann in which a dissection was made by Leubuscher, led to their conclusion that the disease is a result of an affection of the nerve centres.

Baerwinkle gives a new hypothesis, regarding an affection of the great sympathetic nerve as the primary cause.

Friedberg reports several cases, ascribing the disease primarily to the muscles.

Frerichs relates a similar case in his own clinical experience.

Pathological Anatomy.—Fourteen dissections are recorded; five by Cruveilhier, one by Aran, one by Romberg, two by Meryon, and one each by Schneevogt, Oppenheimer, Virchow, Valentiner, Frommann and Leubuscher.

These show in every case changes in the muscles, either by themselves or associated with changes in the nervous system. Seven cases show changes in the muscles only. The pathological changes seem to become first apparent in emaciation and diminution in the volume of the muscles, unaccompanied by any alteration in structure.

Gradually, as they become more or less affected, the muscles pale, then become yellowish; a want of blood becomes noticeable, and finally changes are observed of the fibres into little adipose particles and granular globules.

After resorption of the fatty part, nothing remains but cell tissue. The diseased muscle will give an adipose stain on paper.

Other peculiarities in individual dissections require detail.

In four of Cruveilhier's cases, he found such degeneration as justified him in recognising two degrees: 1st. *Atrophy by* EMACIATION, which reduces the muscle to the fifth, tenth, and even twentieth part of its normal weight and volume without altering its structure, and accompanied with a noticeable diminution of the red color; and 2d. *Atrophy by adipose degeneration.* An intermediate degree exhibited decoloration of the muscle to a pale rosy hue, like that of the muscles of organic life. In his fifth dissection the appearances differed. The muscles had passed into an adipose formation, producing an atrophy called œdematous, for serum had replaced the fatty substance.

Meryon, who instituted more accurate histological investigation, found the muscles soft, without blood, and pale. The fibres at various places were altered into adipose drops and granules, and the sarcolemma torn. He states that the difference between the adipose degeneration of atrophic muscles, and that of other paralyses, is that in the former *the fatty particles are found in the muscular fibres,* while in the latter it is deposited *among them.*

Nevertheless, the degeneration of the muscle does not continue peculiar to this process, but similar to that in general atrophy. This view is confirmed by Leubuscher, who found the primitive fascicles in the fibres of the muscles themselves torn by large accumulations of fat, besides the larger adipose drops. Virchow has investigated these structural changes carefully. He says some muscles are completely degenerated, pale, yellow, and œdematous; but distinctly fibrillous. Under the microscope the connective tissue shows itself with fat cells in which fine granular striæ are visible, corresponding partly to the old fascicles of the muscles, partly coherent, partly interrupted. Other muscles are pale, meagre, but of a reddish tint produced by fine longitudinal vessels. In these muscles, small sacs were visible, containing minute adipose drops, besides longitudinal kernels here and there. At other places are small round granules, which, when treated with acetic acid, appear like pus corpuscles, having a depression in the middle, and thick edges. These were in rows, in groups, and solitary. (Here Dr. Zaremba quotes at length from Virchow in confirmation of these facts.)

Changes in the nerves have been demonstrated in seven dissections. The structure of the brain was disturbed but in one, the case examined by Leubuscher. Here the dura mater adhered to the cranium, the pia mater was hyperæmic, and the arachnoid hard and turbid; the substance of the brain was œdematous, the cineritious portion pale, and serum was found in the ventricles, with right optic thalamus compressed. In the cornua were many apoplectic effusions and amylaceous bodies.

Valentiner and Schneevogt demonstrated changes in the spinal marrow. Both found the substance of the brain soft where the greater number of roots passed out. Here were also granular corpuscles, which consisted of accumulated adipose drops. Valentiner also found fibrous exudation on the posterior part of the tunica arachnoidæa, and ossification in parts of the cervical portion.

(Again quotations from Virchow, showing the same result.)

In the dissection of Leubuscher, the arachnoid, medulla oblongata, and superior part of the spinal marrow, were thickened and covered with dark stains. In the superior part of the thoracic region, where the arachnoid was not affected, the spinal marrow was compressed.

From the fourth cervical vertebra, the red softening, especially of the commissures and the innermost part of the anterior fasciles, was observed. Under the microscope were seen a great number of granules and starchy corpuscles, some torn nerve fibres and recent apoplectic effusions, and pigments and crystals of hæmatoidin. With more care it could be seen that the internal roots were diseased; a condition upon which Cruveilhier lays great value.

Of the fourteen cases, the anterior roots were atrophied in five. Cruveilhier found in two instances the hypoglossal nerve wholly atrophied, while the trigeminus was uninjured. In one case, on the side most affected, the facial nerve was atrophied.

Schneevogt found the superior anterior roots of the cervical nerves much altered, especially on the side earliest attacked. Valentiner saw changes of the same nerves into adipose matter, and changes of the peripheric nerves.

Cruveilhier found the nerve of the arm, although the brachial plexus was without lesion, so atrophied in the peripheric part when it entered the muscle, that only the neurilemma was left. Schneevogt found the ulnar nerve of the opposite side filled with fat. Valentiner remarks that the nerve contained fewer fibres than normal, as there were broad interstices longitudinally and obliquely, occupied by granular tissue.

These observations are confirmed in full by many others.

Symptoms of the Disease.—This disease usually attacks young and robust men, who are compelled to work

hard. They first complain of weakness in the diseased part, fatigue after labor, and soon a sense of cold sets in, and the fatigue is greater as the temperature lowers. In the majority of cases it commences in the superior extremities, generally in the hand. The parts become emaciated, the condition rapidly involving entire regions of muscles. With this condition there is associated a peculiar symptom which is constant, called "contraction of the fibres." Little spontaneous movements become visible on single parts, shaking the skin a little without pain, so that the patient is often unaware of their occurrence. They are induced by slight disturbances, as blowing on the parts, sprinkling cold water over them; and they are more frequent in a reduced temperature. They do not occur during voluntary contraction of the diseased muscles, or during contraction in response to galvanic irritation; although Aran reports a case in which they were increased by galvanism. They occur even during sleep, and have been observed in all atrophied muscles, and especially in the tongue. It is worthy of notice in this connexion, that Leubuscher observed that this contraction continued spontaneously for a quarter of an hour after death, and that it could be reproduced by rubbing, even at a later period. With the progress of the emaciation, the contour of the body becomes greatly altered, the bones becoming prominent, especially where there are angular elevations. Where two bones come together, as at the metacarpus, the spaces between fall in like ditches. These effects are especially evident in the hands.

As long as some of the muscles of a part remain uninjured, motion is yet possible, but gradually becomes more difficult, until all power is lost; neither the will nor the galvanic current being able to produce it.

In all cases the sensation of the skin was undisturbed, so far as reported; but in two of the cases which came under the observation of the writer, it was greatly affected. The patients moreover lost a good deal of their susceptibility to changes of temperature, and one individual could hold his hand for quite a while upon a hot stove without discomfort.

MM. Mayer and Baerwinkle mention that electro-muscular sensation was feeble, the greater the atrophy.

Pain has been noticed only in individual cases, and where rheumatism was present. Wachsmuth reports excruciating pain in three out of sixty cases.

Abnormal sensations, as itching, burning, formication, etc., occurred only in Frerichs's case.

Spasms seldom occur. Aran observed them in three cases, and Cruveilhier but once.

Baerwinkle produced a feeling of cold with cutis anserina from application of the galvanic pole.

Lowness of temperature, as the disease increases, is observed, both by the patient and by others. Frommann alone says he has seen the temperature slightly raised. Baerwinkle founded upon this and his own observation his belief as to the nature of the disease.

A peculiarity exists in the extension of the disease from muscle to muscle, not regularly, but jumping here and there, from one side to the other, etc. In but a few cases perturbation of the circulation in the affected parts occurred.

Three hypotheses relative to the contraction of the fibres have been offered, not based on any solid argument. Wachsmuth believes them to be innate with the muscles, without connexion with the nerves. He considers it similar to the spasms of Asiatic cholera, where the muscular contraction results from insufficient nourishment of muscles, the absence of their necessary fluid. This argument cannot be admitted, since diseased muscles in atrophy never appear to suffer from this loss.

Friedberg thinks they arise from irritation of the inter-muscular nerves, and of which there may be three forms: 1st. Contractions from reflexion, owing to the alienation from which, the sentient nerves will suffer when the nutrition of the muscle is destroyed. 2d. The destroyed nutrition of the muscle, of itself producing the irritation of the intra-muscular motor nerves. 3d. The destroyed nutrition of some muscular fascicles, being suddenly able to debilitate the galvanic stream of the muscles, which, when it reaches the neighboring fasciculi, will cause them to contract.

The third exposition has been given by Baerwinkle. While all other authors agree that contractions occur only in such fasciculi as are uninjured, he adopts a view to the contrary, asserting that they take place in fibres already suffering from perturbation of nutrition. He bases his views on the following causes: 1st. The limited number of the contracting fascicles, not permitting voluntary or electrical contraction powerful enough to move the limb; 2d. The power and number of the contractions increasing in an equal ratio with the increase of the paralysis, up to a certain degree; 3d. The convulsions disappearing under voluntary contraction. With regard to the causes of the contractions themselves, he is of Friedberg's opinion, adding that they are mostly provoked by the degeneration of the fibres of the nerves, which are said to be atrophied also. In the opinion of the writer Friedberg's views are of the greatest value, as he physiologically demonstrates the pathological result; but Baerwinkle's deduction cannot be sustained. The writer does not see why the greater part of some muscle should not be strong enough to allow contraction, and yet single fibres only be moved upon some extraordinary irritation, which fibres moreover are in contact with the adipose fascicles themselves, or the fibres of the nerves. As for the second cause suggested by Baerwinkle, the irritation to which the other healthy fibres are subject is the greater, the more fatty they have become by atrophy; the contractions are therefore increased to a degree with the degeneration. As to the third cause, Baerwinkle has erred against his own theory, since it is apparent that as further contractions cannot be produced by a muscle already contracted, the fibres themselves must remain unaffected, although when at rest they may be excited to short irregular contractions by neighboring stimuli.

(To be continued.)

Guy's Hospital, London.—Two registrars have been appointed to Guy's Hospital upon a different footing from that of the older officers bearing the same name. A liberal salary is attached to each post. The duties of these officers are to take under their charge the ward clerks and superintend the work at the bedside. The appointees are,—Dr. Hilton Fagge for the medical side, and Mr. George Eastes for the surgical.

The International Sanitary Commission is still in session at Constantinople. The discussions are charged with being more of a speculative than practical turn, and are said to be characterized by not a little acrimony. The majority of its members still believe that the cholera is only an epidemic, while others declare that it is contagious; the general tenor of debate, however, would seem to indicate a nearly unanimous report in favor of the efficacy and necessity of strict quarantine.

Sir Thomas Watson, M.D., Bart.—Her Majesty, the Queen of England, has lately conferred the honor of a baronetcy upon the distinguished president of the Royal College of Physicians, London.

New Instruments.

HALL'S OINTMENT SYRINGE FOR VAGINAL APPLICATIONS.

This instrument is of service in making applications of firm ointments and plasmas, etc., to the neck of the uterus and upper portion of the vagina. By having several of these each filled with different applications, we may avoid the too frequent use of the speculum, and at the same time make a much more thorough application to the parts.

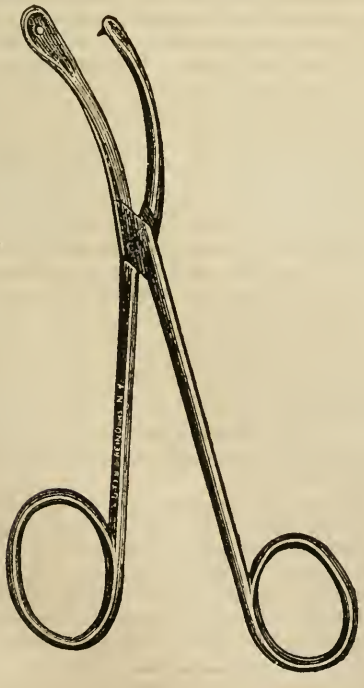
(Tiemann & Co.)

The upper portion, with fine holes in the end, is the chamber for the ointment, which can be easily taken off from the main instrument, to be refilled by the screw in the centre. The lower portion contains the piston, and is threaded for the screw, which is the handle of the instrument. With the patient on her side, and knees drawn up, it is very easy to make the application without any inconvenience.

The contraction of the parts cuts off the threads of ointment as the instrument is withdrawn, which can be cleaned much easier than a speculum.

NORTH'S SCOOP AND TOOTH FORCEPS.

The little instrument, which it is thought will be found very convenient for the removal of foreign bodies from the nares, meatus auditorius, and other narrow passages, is represented in the cut below. It should be made to appear less bulky, and more evenly curved



sidewi se; but we trust our readers will be able to draw sufficiently upon their imaginations to get a reasonably good idea of its conformation. It was devised by Dr. N. L. North, of Brooklyn, New York, and manufactured by Otto & Reynders, of Chatham street. The Doctor first had the instrument made straight, but afterwards, for the more convenient use in the nostrils, he had a second one curved somewhat as above. He thinks with a larger instrument properly curved, it might be useful as an œsophagus forceps; and made longer and stouter, it cannot but work well as a bullet forceps. It will be seen that there is a hole through the centre of the scoop of the right beak; this is for the passage and shelter of the tooth extension of the left beak of the instrument, when closed. In using, the forceps should always be carried *closed* into the passage where anything is to be removed; passing the scoop *beside*, and partially *behind*, the substance, and holding it there with a slight leverage movement, you open the instrument upon the foreign body, and grasp it with the tooth beak, and withdraw the substance with ease and certainty; thus avoiding the disagreeable and painful prying work necessary when using the scoop alone, as well as the continual and vexing failures from the slipping back of the foreign body so common when endeavoring to extract with the simple forceps.

Correspondence.

THE CHOLERA IN PHILADELPHIA, ETC.

To the Editor of the Medical Record.

Philadelphia, August 1, 1866.

Sir—The warm season is always a season of quiet in medical affairs. Many patients and a few of their physicians leave the city in search of cooler regions and sea-breezes; consequently there is little besides gossip to justify your correspondent in continuing his contributions during the hot spell. Physicians who cannot or who will not go away visit the usual amount of cases of intestinal disorder incident to the period of year, and little that is new results. In view of the presence of cholera among us these cases demand stricter attention. There have been a good many cases of cholera reported to our Board of Health, with a large proportion of deaths. Last week's mortality report gives sixteen fatal cases in adults and two in children. On Monday of this week over twenty cases were reported—(so says one of the daily newspapers)—with nine deaths. The cases so far have occurred in the crowded and unhealthy localities, where the poor and wretched congregate in their misery.

Considerable excitement prevails among the community on this subject, from the published fact that our City Common Council adjourned over the summer without making the special appropriation called for by the Board of Health, who are thus left in the lurch without funds at a very critical period. This is one of the misfortunes of political organizations. It seems strange that the people should place such an important measure as the supervision of sanitary affairs in the hands of men who are incompetent to judge of the necessity of sanitary measures or the proper mode of conducting them. It is true that one or two members of the Board of Health are physicians, one of whom is a perfect Nestor in the matter of sanitary reform; but his hands are not free; he is compelled to defer to the decree of non-professional men who may choose to outvote his measures. The local gratuitous offices are often seized upon by avaricious men who pervert their duties into obtaining contracts for public works for friends who divide the profits with them, and to their trade they will sacrifice the health and lives of the very constituents who have placed them in office. Medical

men, too, do not take the stand in public measures that they should do. It should be part of the duty of medical organizations to watch over the public health, and to impress upon the people the necessity of such supervision, and of placing the administration under the exclusive control of competent medical men, whom they should pay for their services in order to secure the proper ability. Concerted action of this kind, properly conducted, could not fail of success. Suppose, for instance, the programme of such an arrangement should be debated before our medical organizations, and they should unanimously resolve to appeal to the community for legislation to secure a proper supervision of the public welfare, and then each individual doctor should make it his business to visit every family in which he practised, and impress upon them individually the necessity of instituting such measures, answering objections which might be urged—such a concert of action, a general appeal, strengthened by individual exertion, could hardly fail in placing the subject in its proper light, and securing proper supervision under a Board of Health composed of men identified with knowledge of sanitary matters, and clothed with full authority to enforce the measures they adopt.

To show the great need we have of a sanitary reform in this city, I clip from the *Inquirer* of to-day the following article:

"*A Cholera Victim Unburied for Over Two Days.*—On the authority of the Rev. John D. Long, Missionary of the Bedford street Mission House, it is declared that for the past two days the corpse of a negro man, who died from Asiatic cholera, has been lying unburied in the miserable tenement-house, No. 818 Bedford street. This young man died at 4 P.M. on Sunday, after an illness of several hours. His friends, living in the same hovel, were too poor to bury him, and had to forsake their home to escape from the contagion caused by the rapidly decomposing body. The Board of Guardians were applied to for the burial of the body, in accordance with the regular city regulations. They assented, and on Monday despatched a coffin in charge of a boy. This box proved to be too small to hold the corpse, and it was taken away with a promise that another should be sent. *This promise was violated, and as late as known, the body remains unburied.* Thus, besides the criminal negligence of the City Councils to strengthen the hands of the Board of Health, the seeds of the terrible pestilence are being sown broadcast throughout the most crowded sections of our city, to be reaped in ghastly harvests for the grave-yards.

"These purlieus of our city are crowded to overflowing. Night after night the door-ways and side-walks are the sleeping-places of the poor wretches who cannot find any other shelter. A few weeks ago the police made raids through the district, seizing those houseless vagabonds, and arraigning them before a magistrate, who committed them to Moyamensing. But Moyamensing cannot now receive them. The alderman has no place to which to commit them; the police dare not arrest them; the Board of Health and the Poor-house authorities leave unburied for over fifty hours the putrefying remains of any poor person who may chance to die of cholera, contrary to the dicta of red-tapeism. What wonder if one of these days cholera becomes an epidemic, and sweeps away its myriads of victims!

"Our good mayor, Morton McMichael, can surely, in his administrative capacity, rectify this criminal neglect on the part of somebody, and allow the paupers to be laid at rest where their loathsomeness will not scourge our fellow-mortals."

Such enormities cry aloud for "REDRESS" and "*punishment*," if either individual or corporation be guilty. To show how the city guardians take care of their constituents, I subjoin another extract from the same paper of July 25th. I would state, however, that on Friday the same paper published a transcript of the proceedings at the meeting referred to, which singles out the individuals upon whom the responsibility rests. I trust that you will, in your editorial capacity, call upon medical organizations to begin reform in this direction at once, so that the matter can be brought before the American Medical Association next year, and measures be taken at one and the same time in all parts of the country to prevent in future any such disgraceful record to blot the open page of self-government.

"*Our City at the Mercy of the Cholera.*—In New York the Board of Health pronounce the cholera epidemic; in this city there are severe cases of cholera-morbus, which are more dangerous and fatal than usual in summer. How soon the Asiatic disease may open upon us with dreadful violence, only the Great Disposer of Events can know. But our citizens who imagine that everything that is possible to be done by the sanitary care of the Board of Health will be done, will not fail to be startled with the information that, if the malady should break out with intensity, *we are without the means to cope with it. Nay, more, they can scarcely suspect that within a week the Board of Health will be without the assistance of the sanitary officers and agents who have assisted it in inspections, and who ought to be ready at this, the most critical and dangerous period of the year, to carry out every measure necessary to preserve, as far as possible, the public health.* In one week from this time the Board of Health will be compelled to discharge *twenty-seven sanitary inspectors and five clerks*, and that body will be left with no other assistants than are allowed it in the most healthful seasons, when the bills of mortality are low. It may be asked who is responsible for this most extraordinary state of affairs? Who trifles with the health and happiness of seven hundred thousand persons? Not the Board of Health. The members have in vain besought the means to carry out the objects entrusted to them. A few weeks ago application was made to the City Councils for an appropriation of $20,000, to carry the city safely through this dangerous summer. Instead of granting the request promptly, as would have been done if the money had been wanted for any political object, members of Councils questioned the necessity of any appropriation.

"They trifled and fooled away time over the matter, and finally the Committee on Health, by way of compromise, we suppose, reported in favor of an appropriation of $10,000. This appropriation was grudgingly granted by the Select Council at the last meeting, and with much trouble was got through the Common Council. Having performed this act of munificence—having, to save the lives and health of our large population, granted one half of the appropriation which was necessary to enable the proper Board to perform its important duties, Councils adjourned for the summer, the members separating in various travelling parties, and one of them, sent to inspect the Boudinot lands on the Susquehanna river, actually extending its trip to Pittsburg, Cincinnati, and St. Louis, to return by the way of Chicago and the lakes—and all at the *public expense.* The result of thus trifling with the very existence of our citizens will be, that the Board of Health, not having the means, cannot undertake to execute measures for the public safety with the system and management necessary. It will have to discharge all its extra agents and officers, and if the cholera rages and our citizens die by hundreds, let every one know that the crime and the suffering, the misery and the disgrace, lie at the doors of the City Councils, which are composed of men who restrict appropriations when they are for the public good, and spend money lavishly when some corrupt and extravagant purpose is to be served."

It is the duty of our profession to PREVENT DISEASE, where possible, and to make the attempt, even when the hope of success is small; and all who will not assist in the good cause are derelict and recreant.

On Monday, August 6th, the JEWISH HOSPITAL will be open for the reception of patients. The Jews of this city have formed a Jewish Hospital Association, and have a very convenient hospital in that part of the city west of the Schuylkill, known as West Philadelphia. The grounds comprise between four and five acres. Though established with the view of furnishing Jewish patients with the peculiar cuisine to which they are accustomed,

patients of other persuasions will not be denied admission. The hospital and grounds are owned in fee; the treasury is well filled; and it is supported by annual contributions sufficient to meet all prospective expenses.

Quite a number of surgeons have been using the ether spray apparatus of Dr. Richardson, and the rhigolene apparatus of Dr. Bigelow, for purposes of inducing local anæsthesia by refrigeration; and the former instrument is coming into general use in dental practice. Your correspondent has not had much experience with these agents. The first time he employed one was on April 7th, in seeking for a needle in the palm of a lady's hand. In this case the ordinary ether, U. S. P., was used, with Bergson's tubes and Davison's gum-bag syringe as compressor. The lady suffered no inconvenience whatever, during an operation lasting ten minutes, but sensation was not entirely benumbed. Subsequently he applied the same article in the same way, while a friend removed a fatty tumor from over the deltoid; and he has since seen it employed by others in the opening of abscesses, felons, etc., with satisfaction as to the general result, but not as to the fact of the entire abolition of sensation. Pain was reduced to less than uneasiness, but every patient declared that he felt the knife.

Under the application of rhigolene a friend removed from one of his patients, under treatment at the time for an affection of entirely different nature, a fibrous tumor from the elbow-joint, and the success was perfect. A couple of gentlemen are making a series of observations, pathological and physiological, with these agents, the results of which will be of great general value.

I am glad to learn that the University Medical College of your city are endeavoring to make clinical hospital instruction a portion of the regular curriculum in the teaching of medicine. The sooner that plan is adopted all over the country, the better for school, for graduates, for the public. It is just absolutely impossible for men to learn practical medicine from lectures. A lecturer tells his class—in carcinoma we have a peculiar expression of countenance highly characteristic; the physiognomy of Bright's disease is peculiar, and so on; or the smell of small-pox once recognised, can never be forgotten; or he who has once perceived the odor of chronic dysentery can never mistake it. The students may remember all this or not; most likely "or not," most of them. But let that teacher take the class into the hospital wards, and say—that is the smell of the dysentery, or that is the expression in cancer, and the peculiarities will be much better remembered. It seems to me the rule has been generally to teach as many students as possible in as short a time as possible. The practice is very pernicious, and its bad effects are becoming daily more and more perceptible. We need in Philadelphia a hospital college very much. We are behindhand in this professional centre. There has been some talk of establishing a hospital college in Philadelphia; and if properly managed and presided over, it would no doubt be as successful in time as the hospital colleges elsewhere.

I am glad that THE RECORD has commenced the discussion of medical education, and trust that the subject will be continued. When the weather becomes cooler and the flies bite less, your correspondent intends marshalling some of his ideas into line on this same field; but it's too warm just now even for light skirmishing.

Yours truly,

C. J.

NUMBER OF VOLUNTEER MEDICAL OFFICERS NOW IN SERVICE.—Twelve surgeons and five assistant-surgeons only now remain in the volunteer service of the U. S.

REPLACEMENT OF PRESENTING ARM, BY PROF. THOMAS'S METHOD OF REDUCING PROLAPSUS OF CORD.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—I beg leave to offer for publication the following case, to illustrate that the position of the patient required in Dr. T G. Thomas' method of reducing prolapsus of the cord, renders the replacing of a presenting hand or arm possible.

I was called to attend Mrs. M——, in confinement, June 7, 1866. Discovered, on examination, the left hand protruding from the vulva; also several inches of the umbilical cord and the ear, the presenting part of the head. The cord was still pulsating, and the uterine pains were moderate. I at once proceeded to reduce the cord by the method proposed by Dr. T. G. Thomas, and succeeded without much difficulty. Having accomplished that desired end, I determined to attempt the returning of the arm while she remained in the same position, which was done as follows: carrying the elbow upwards and backwards towards the spinal column obliquely, until the hand was within the cervix uteri, and then by pressing the hand downwards and backwards until it was slipped within the uterine cavity. On withdrawal of the hand, the head fell of itself into the first position. Labor thence proceeded naturally, and the woman was delivered of a living child in about two hours' time.

I do not lay any stress on the manner of reducing the arm, for it can only be done in the way described. I place all importance on the position of the patient. The position relaxes the vaginal sphincter, enfeebles the uterine pains, and gives also the advantage of atmospheric pressure.

This position of the patient will, in my opinion, be found to render pelvic version easier when required to be done by introducing the hand into the uterine cavity.

Most respectfully yours,

ALEX. HADDEN, M.D.

NEW YORK, July 2.

RELIEF FOR SPASMODIC ASTHMA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—Having been a sufferer from frequent severe and protracted attacks of spasmodic asthma for a period of fifteen years, and having by accident hit upon a means for speedy relief, I am induced to present the same to the profession in the hope that by its adoption it may prove as beneficial to such as are subject to attacks of this distressing affection as it has been to myself and to some of my patients.

In December, 1865, I was having a severe attack of asthma one evening about nine o'clock. I placed myself standing at the foot of my bed with my arms folded upon the foot-board for a pillow, the forehead resting upon the folded arms, and the feet placed a sufficient distance to make a partial semicircle of the body.

While laboring severely for air, the thought occurred to me to cease breathing for a few seconds. I did so, and after several trials I felt some relief.

I then expired all the air that it was possible to, after which I determined not to inspire again until I found it absolutely necessary. I succeeded in waiting several seconds, then inspiration was carried to its fullest capacity, and retained with great effort for many seconds. This act of forced expiration, waiting, thorough inspiration, and again waiting, was continued for some fifteen minutes, and to my delight the spasm was perfectly relieved. I have since relieved several similar attacks by the same method in less than two minutes.

I have advised this course for many others, and their testimony has been uniformly satisfactory, except in one instance, that of an aged lady with heart disease. It requires a great effort on the part of the patient to perform the act. It is well for the medical adviser to perform it personally in presence of the patient, and then desire him to perform it once or twice under his supervision. The first attempt of retaining the inspired air during the asthmatic attack will cause the patient to think he cannot continue it, but perseverance will soon delight him with relief from the spasm.

Yours respectfully,
J. S. Monell, M. D.

N. Y., July, 1866.

LOCAL ANÆSTHESIA IN PERIOSTEAL AFFECTIONS.

To the Editor of the Medical Record.

Dear Doctor—That the employment of ether spray is as yet in its early infancy, and so far undeveloped, must be my apology for sending you the following brief notes, which I forward, hoping they may suggest a further investigation to some one whose facilities are more extended than my own.

Miss E. R., æt. 19, had for many years suffered much pain and soreness on the outer side of the right forearm, attributed by her medical attendants to some periosteal disease, the result of a fracture of the radius in its upper third, which occurred during infancy. This affection had resisted the usual routine of treatment by blisters, iodine, croton-oil, etc., and has been only temporarily relieved by the introduction of a seton; an operation she has undergone several times during the last few years. On the first of June she applied to me for some palliative liniment, and being then engaged in researches upon local anæsthesia (see No. 8 of the Record), and at that moment anxious to compare its results upon ourselves with those upon some female system, I projected the ether spray over the seat of pain in her arm, with the anticipated effect of destroying all sensibility of the skin when punctured. I prescribed for her an anodyne lotion, with directions to use the same when the pain returned. A few weeks afterwards my patient informed me that she had experienced no uneasiness in her arm since the ether was employed upon it, and this freedom from suffering continued until July 10; when, in consequence of an unusual muscular exertion of that extremity, the pain reappeared, and becoming quite severe, induced a reapplication for relief. I again produced local anæsthesia, informing the young lady, however, of my fears that her former temporary cure was only apparent, and the result of coincidence; and I was agreeably surprised the next day to learn that she was *again* entirely free from the suffering which had so obstinately resisted far more painful and troublesome remedies.

Dr. Sedgwick, in his summary of Dr. Richardson's cases (quoted in the Am. Journal of the Medical Sciences, July, 1866), claims curative results in neuralgic diseases only; and, although I am aware that the prompt relief obtained in this case affords ground for the presumption that it was purely of such a character, yet it appears to me that some features of the complaint, such as its traumatic origin, prolonged continuance, obstinate persistence under the use of epispastics, gradual diminution on the establishment of neighboring suppuration, and especially the character of pain experienced, combine to throw so much doubt upon the hypothesis of its being a simple neurosis, as to render further experiments with the ether spray upon all local paræsthesia eminently justifiable, even though these affections may be of ascertained inflammatory origin.

Respectfully yours,
Jos. G. Richardson, M.D.

Union Springs, Cayuga Co., N. Y., Aug., 1866.

CONGENITAL STRICTURE OF THE ŒSOPHAGUS.

To the Editor of the Medical Record.

Sir—The following case I have thought would be of interest to your readers, and accordingly communicate it:—The subject was a male infant, born at full term. The woman was attended during labor by a quack. The child being applied to the breast, would choke after a few attempts at deglutition, and the milk flow from the nose and mouth. "This," said the quack, "is because the *swaller* is full of phlegm," and advised a dose of oil "to make it right!"

Four days afterwards I was called in to see the child, and concluded that it was a case of stricture of the œsophagus. Dr. Larey of Mount Pleasant, Kan., who examined the case, was of the same opinion. I found it impossible to pass a bougie beyond the pharynx. I tried a small catheter with the same result. Seven days after birth the child died from inanition.

The only pathological change was in the œsophagus, which, throughout its *entire course*, was a solid cord. Congenital malformations are governed by no laws; and in that mysterious field the physician may often grope without much hope of a correct diagnosis, unless revealed by the scalpel.

Respectfully yours,
John Parsons, M.D.

Mount Pleasant, Kan., July 1st, 1866.

New Publications.

Books and Pamphlets Received.

Diagnosis and Prescription Record. W. Wood & Co. N. Y.: 1866.

Rinderpest, its Prevention and Cure; and Gypsum as a Sanitary Agent. By John J. Lundy, F.C.S., etc. Edinburgh: W. P. Nimmo, St. James's Square. London: Simpkins, Marshall & Co. 1866.

On Excision of the Superior Maxilla. Report of a Case; with Remarks on Certain Tumors of this Bone. By W. R. Whitehead, M.D. (Univ. Paris.) Formerly Professor of Clinical Medicine in N. Y. Medical College. (From N. Y. Med. Journal.) N. Y.: 1866. 8vo., pp. 28.

A Letter to the Consulting Physicians of Boston. By Wm. Read, M.D., City Physician, Boston.

The Medical Register of the City of New York, for 1866. Guido Furman, M.D., Editor. 16mo, p. 306.

A Guide to the Practical Study of Diseases of the Eye, with an Outline of their Medical and Operative Treatment. By James Dixon, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, Moorfields. From the 3d London Edition. Philadelphia: Lindsay & Blakiston. 1866. 12mo., pp. 394.

Medical Recollections of the Army of the Potomac. By Jonathan Letterman, M.D., late Surgeon U.S.A., and Medical Director of the Army of the Potomac. N. Y.: D. Appleton & Co., 443 & 445 Broadway. 8vo., pp. 194.

The Third Annual Report of the New York Society for the Relief of the Ruptured and Crippled. May, 1866.

Medical Diagnosis, with Special Reference to Practical Medicine. A Guide to the Knowledge and Discrimi-

nation of Diseases. By J. M. Da Costa, M.D., Lecturer on Clinical Medicine, and Physician to the Pennsylvania Hospital, etc., etc. Illustrated with Engravings on Wood. 2d Edition. Revised. Philadelphia: J. B. Lippincott & Co. 1866. 8vo., pp. 784.

Medical News.

PERSONAL.

Prof. Wm. Warren Greene, of Pittsfield, Mass., removed, on July 18th, from the neck of a lady, aged 44 years, a bronchocele, which is believed to be the largest ever successfully operated upon. A full report of the case will probably be furnished us at an early day.

In the U. S. Army Medical Department we notice the following:—

That the recent order mustering out Surgeons W. R. DeWitt and M. K. Hogan, U. S. Vols., has been suspended.

Assistant-Surgeon T. McMillin, U. S. Army, has been ordered to accompany a detachment of recruits for the Nineteenth Infantry, from Newport Barracks, Ky., to the Department of Arkansas; Assistant-Surgeon John B. Petherbridge, U. S. Artillery, to accompany a detachment of recruits from Carlisle Barracks, Penn., to the Fourth U. S. Cavalry in Department of Texas. Both officers, on completion of their several duties, to return to the proper stations.

Brevet Major George M. McGill, Surgeon U. S. Army, has been relieved from duty in the Middle Military Department, and ordered to report for temporary duty to the Medical Director of the Department of the East.

Surgeon Charles Sutherland has been granted a thirty days' leave of absence.

The following announcements have been officially promulgated:—

Brev. Major David L. Huntingdon, Assistant-Surgeon U.S.A., to be Lieut.-Colonel by brevet. Assistant-Surgeons Charles A. McCall, Jeremiah B. Brinton, Harrison Allan, and Edward Brooks, to be Captains and Majors by brevet. Assistant Surgeons Warren Webster, John H. Janeway, Samuel Adams, William M Notson, Geo. M. McGill, John W. Williams, William F. Norris, and David O. Farrand, to be Captains by brevet.

In the Medical Bureau of the U. S. Navy, the following changes, etc., have occurred:—

Surgeon J. D. Miller has been ordered to duty as a member of the Medical Board at Philadelphia; Assist.-Surgeon W. J. Simon to special duty at Philadelphia; Assistant-Surgeon Robert Reddington, to receiving-ship at New York; Acting Assist.-Surgeon Reuben Smith, to the Chicopee; Passed Assist.-Surgeon T. Wolverton, to the Monocacy; Assistant-Surgeons W. S. W. Ruschenberger, David Harlan, and Richard C. Dean, to the Naval Academy, for the purpose of examining the physical qualifications of candidates for admission as midshipmen; Surgeon Wm. J. Simon to iron-clad duty at League Island, Penn., to relieve Assist.-Surgeon John McD. Rice, placed on sick leave of absence.

The following officers have been detached:—

Acting Assist.-Surgeon George L. Simpson, from the coast survey steamer Bibb, and placed on waiting orders; Acting Assist.-Surgeon A. C. Fowler, from the Chicopee, and granted leave of absence.

Acting Assistant-Surgeon John Spare has been honorably discharged, to date June 2, 1866.

Passed Assistant-Surgeon Grove S. Beardsley has been promoted Surgeon.

PROGRESS OF THE CHOLERA.

In England.—A London secular print of the 20th ult. states that there can be no doubt now that the cholera, which has already effected a lodgment in many of our more distant ports, has appeared in a very troublesome form in London. Thirteen cases have been admitted into the London Hospital, and five deaths have occurred there this week; and other patients are now in a precarious state. Several deaths from cholera have taken place in the neighborhood of the hospital.

The *London Times* of the 21st ult. has the following:—"In Liverpool there have been seven more cases, all from the town, admitted to the cholera wards since three P. M. on Thursday, and there have been four more deaths—two adults, a boy of ten, and a young child. The total number of admissions is now forty, and of deaths twenty-two. No new case has appeared in the Workhouse for three days, but the new cases admitted from the town appear to be of a more virulent type than any before admitted. Seven of the older cases have been removed to the convalescent ward." The weekly return, July 23, of the Registrar-General, gives the number of deaths for the week ending on Saturday as 346.

In France.—Several cases have been treated in the Paris hospitals. At Amiens the visitation continues. There were seventeen fatal cases on July 17. In other parts of France the epidemic does not spread greatly.

By way of a general view of the situation in the Old World, we may quote, in part, a letter from the U. S. Consulate, Port Mahon, July 30, to the Hon. F. W. Seward, Assistant Secretary of State of the United States, to the following effect, that from information received, "the mortality among the pilgrims at Mecca, from cholera, is much greater this season than the last. The information says that the disease is more fatal and of a much more malignant type than last year. It is reported that the infection has again appeared in France. I have no information that the disease has as yet reappeared in Spain. The quarantine authorities, acting upon the supposition that the disease is contagious, have instituted a rigid quarantine, going so far as to require all vessels from the ports of the United States and British ports, bound for any of the Spanish ports in the Mediterranean, to quarantine here."

In the United States.—Since our last writing the disease has manifested itself fatally in Philadelphia, but as yet the number of cases is limited. Owing to the fact of its appearance among the Hart's Island recruits, along the line of transfer to the various military stations at Louisville, Ky., New Orleans, La., Galveston, Texas, not to mention the cases at Tybee Island, Ga., of which sixty-nine proved fatal up to the 26th ult., stringent War Department orders have placed those at present in the harbor of New York in strict quarantine.

The Board of Health of Poughkeepsie, N. Y., have issued a public letter, dated July 26, in which they redeem their promise to furnish early and accurate information by citing the particulars of a recent fatal case occurring upon a coal barge at the docks. The man in question "had been subject to diarrhœa, had been very much heated the preceding week, had been imprudent in his diet, eating oysters and unripe potatoes freely while lying at the docks in New York city; and, neglecting to treat the diarrhœa, was taken suddenly at two o'clock in the morning with cramps, vomiting, and purging. His boat was then being towed up the river, and it was impossible to get medical assistance. He was not seen by a physician till about four o'clock in the afternoon of the same day, when he was far advanced in the collapsed stage. Notwithstanding the use of reme-

dies, he died about ten o'clock the same night. The barge has been thoroughly disinfected by the proper officers, and every precaution taken to destroy all clothing and other sources of disease."

A few other reported cases in the suburban villages near Poughkeepsie need authentication.

Morrisania, N. Y., has also been visited, as well as Providence, R. I., in which latter place one death occurred, on the 6th inst. The first case in Cincinnati, Ohio, occurred July 11, since when 82 deaths have been reported up to the 4th inst. An isolated case in the person of a passing recruit was likewise noted a few weeks ago in Boston, Mass., and ended fatally.

New York City and Vicinity.—Since our last writing the cholera has perceptibly increased, particularly among the inmates of the public institutions upon Blackwell's and Ward's Islands, while in the city itself, cases, from having been isolated, have shown an evident tendency to arrange themselves in groups. Meanwhile the Board of Health have opened two hospitals at the extremities of the city, the Battery Barracks and the Red House, Harlem, but in neither can the number of patients be regarded as large. In Brooklyn the disease has not yet spent its force. The Twelfth Ward Hospital is receiving daily accessions of patients, while the disease has manifested itself most decidedly in the Brooklyn and Flatbush Penitentiaries, and the Raymond-street Jail. Governor's Island has been, since our last issue, severely visited, as well as David's Island; but Bedloe's Island has as yet (Aug. 7) remained exempt. Every precaution to prevent its spread to this last island has been taken, while in the two former the medical officers congratulate themselves as having obtained the mastery over the disease.

Fish Epidemic in the Seine.—A fish epidemic is said to be raging in the Seine. Large numbers are cast on the bank in a state of partial decomposition. It will be recollected by our readers that a similar epidemic has been reported among the fish in the James river, in the vicinity of Richmond, Va.

Curious Malady among Beasts of Burden.—We learn from the *Lancet* that at Athens a malady hitherto unknown has broken out amongst the beasts of burden. The animals, seized with a sudden fit of rage, tear their own flesh.

The Maine Medical Association held its last annual session in Portland, Me., commencing June 19, and continuing three days. The following interesting papers were read and discussed: Prof. Nourse, on Compulsory Vaccination; Drs. Swazey and Foster, on Epidemics; Drs. Dana and Le Prohon, on Abortion; Dr. Tewksbury, on Excision of the Knee and Other Joints; Dr. Sanger, on Excisions of the Joints in Army Practice; Dr. Gordon, on Suppurative Inflammation of the Joints; Dr. Tewksbury, on the Application of Caustics to the Uterine Cavity; Dr. Cummings, on Pharmacy; Dr. Snow, on Spontaneous Cure of Ovarian Dropsy; and Dr. Foster, on Extract of Beef. Dr. Swazey delivered the Annual Address. Dr. S. H. Tewksbury, of Portland, was elected President for the ensuing year. The next Annual Meeting will be held on the second Tuesday in June, 1867, at the same place.

The U. S. Army Medical Department as provided for in the New Army Bill.—A recent Act of Congress, reconstructing and increasing the regular army, which has now the force of a law, remodels the medical department as follows:—The medical department of the army shall hereafter consist of one surgeon-general, to rank as a brigadier-general; one assistant surgeon-general, to rank as a colonel of cavalry, and to be chief medical purveyor; and four assistants, to rank as lieutenant-colonels—to give bonds and be assigned to duty as surgeons, when not on duty as purveyors.

There shall be sixty surgeons, with emoluments of majors of cavalry; one hundred and fifty assistant-surgeons, with rank as first-lieutenants of cavalry for the first three years' service, and with rank, pay, and emoluments of captains of cavalry after three years' service; and five medical storekeepers, with the same compensation as is now provided by law; and all the vacancies hereby created in the grade of assistant surgeon shall be filled by selection from among the persons who have served as staff and regimental surgeons of volunteers two years during the war; and persons who have served as assistant surgeons three years in the volunteer service, shall be eligible for promotion to the grade of captain.

Army hospital stewards are to be detailed or enlisted under the direction of the surgeon-general.

Medical Statistics.—The following resolution has been adopted by the unanimous consent of both Houses of Congress: *Resolved*, That the Secretary of War be directed to communicate to the House of Representatives a report of the medical statistics collected during the war in the Bureau of the Provost-Marshal-General by Surgeon J. H. Baxter, as soon as such report can be compiled and prepared for presentation by him.

As Surgeon Baxter has made the subject a matter of careful and intelligent study, his report may be looked for with no little interest.

The Sydenham Medical Club, London.—There is a project on foot to establish in London a club for the convenience of the medical profession, securing at a minimum cost all the advantages of a modern club. A house is to be fitted up as a temporary home for extra-metropolitan members who may be staying in London.

A Compliment to Prussian Surgery.—The London *Lancet*, in the course of an article commendatory of the Prussian Army Medical Department, relates that in a recent encounter a detachment of Austrian soldiers captured by a charge a body of Prussian surgeons engaged in their duties, and marched them, despite their indignant protests, to the Austrian rear, for the purpose of attending to their wounded countrymen.

The same article more than intimates that there is between the Medical Departments of the respective armies the same relative difference acknowledged in their military appointments.

The Empress Eugenie at Amiens.—At Amiens, Eugenie approached the bed of each patient, and spoke a few kindly words, and after a long stay returned to the prefecture. As her Majesty was leaving the hospital two poor children were presented to her as having been rendered orphans by the cholera, and the Empress immediately announced her determination to adopt them. After a rapid *d jeuner* the Empress visited all the other establishments for the reception of the cholera patients in the city, and then left for Paris.

The *Constitutionnel*, in remarking on the visit of the Empress, says :—" When courage and devotedness are in question, nothing astonishes us on the part of the Empress. That august lady has accustomed France to consider heroism and charity in her as a simple matter of course."

Her Majesty the Queen of England is reported as having recently been a sufferer from hooping-cough.

Original Communications.

REMARKS ON THE HISTORY OF OVARIOTOMY,

AND THE REPORT OF A CASE IN WHICH THE INTRA-PERITONEAL TREATMENT OF THE PEDICLE WITH THE SILVER LIGATURE WAS ADOPTED WITH SUCCESS.

By NATHAN BOZEMAN, M.D.,

OF NEW YORK (LATE OF MONTGOMERY, ALABAMA).

The late Dr. Ephraim McDowell, according to Professor Gross,* performed the first operation of ovariotomy upon the person of Mrs. Crawford, at Danville, Kentucky, December, 1809.

Glancing at the history of the operation since that period to the present moment, we are not a little surprised to see what little attention the subject attracted, even so late as 1825.

At this comparatively late date, Dr. James Johnson,† in his notice of the records of surgery, severely criticises the statements of Dr. McDowell, contained in the report of his first three cases to the late John Bell. His disbelief of their truthfulness is expressed in a most contemptuous manner: "*Credat Judæus, non ego.*"

And again, in alluding to an operation by Mr. Lizars in imitation of that of Dr. McDowell, in the case of a woman supposed to be the subject of ovarian disease, but which proved not to be, he says: "We think it was very fortunate for the operator that this was the case, for had there been a tumor extirpated the patient would have had but little chance of life."

It was even several years after this, in England, before the operation began to elicit attention commensurate with its importance. To Dr. Clay, of Manchester, who performed his first operation in 1842, the profession, both of this country and Europe, is indebted for the impetus given at that time to the investigation of the subject. He was unquestionably the pioneer of the operation in England, and is justly entitled to the credit of having caused it to be regarded more favorably. He contributed largely at that period of its history to the removal of those prejudices we so often see among medical men against new operations, especially hazardous ones, in which the life of a fellow-being is so nearly balanced in the scale of chances as is unquestionably the case in the operation of which we are speaking.

Of the difficulties encountered by the surgeon in the infancy of any of the recognised great operations, we ourselves can very imperfectly judge, seeing the latter as we do in all the beauty of their success.

Within the last few years, the operation of ovariotomy, scarcely need I say, has grown into such favor, and has been performed so often, that it has lost, to a considerable extent, the dread formerly attached to it. To the increased confidence of the surgeon, therefore, and the more ready compliance of patients undergoing it, our enhanced percentage of success is attributable in no small degree.

The report of such operations is now of almost daily occurrence, and the success usually attending them is certainly most gratifying, and forms an era in the history of ovariotomy that reflects the greatest credit upon the annals of modern surgery, and those who have contributed so largely by their judgment and skill to so encouraging a result.

In addition to Dr. Clay, there are others in England, of whom I may mention Mr. Isaac Baker Brown, Mr. Spencer Wells, and Dr. Tyler Smith, who have certainly displayed great aptness in this operation, and have had very extensive experience in testing its real merits. They claim even a greater percentage of success than he does in a certain run of cases; still, this circumstance does not invalidate, in the slightest degree, the great credit which I have said was due him for his zeal and untiring efforts to raise the operation from the low estimate in which it was first held, to the dignity of one of the great triumphs of the progressive march of surgical science.

Admitting, however, the success of these gentlemen to be as stated, it cannot be fairly contrasted with that of Dr. Clay. Both Mr. Brown and Mr. Wells have had a wider field for their operations, and have had it in their power to choose their patients, and to exercise a control over them comparatively limited in private practice, from which the most of Dr. Clay's cases, as he informs us, have been taken. Though in awarding Dr. Clay the praise he so justly deserves, I do not wish to be understood as detracting from the claims of the other two gentlemen, whose more recent labors in the same field are held in such high estimation by the profession.

The result recently claimed by Mr. Brown, based upon eleven successive and successful operations, by his *intra-peritoneal treatment* of the pedicle with the actual cautery, is certainly wonderful, and is, perhaps, the greatest achievement of which any surgeon can, at the present time, boast in a given number of cases, and to his originality and boldness science and humanity are alike under many obligations. However much it is to be regretted, it is nevertheless true that many surgeons have a disposition, in this as in all other operations, to report their successes, keeping their failures in the background. This is calculated to give undue prominence to the merits of a new procedure, and for awhile is liable to mislead the judgment in arriving at a proper estimate of its value. I have always thought myself, an unsuccessful operation, when justifiably performed and truthfully reported, contributed as much or even more to our fund of knowledge than a successful one; and instead of detracting from the skill of the operator, it should be viewed in an opposite light. Candor and truthfulness have, in this as in all other matters, their reward in the conscientious discharge of duty to the appeals of humanity and the requirements of science.

It is to be hoped, therefore, that Mr. Brown, in the report of his great success with the actual cautery, has been actuated by this golden rule, and that the profession may not be misled to over-estimate the procedure, which, as represented, very naturally appeals to its confidence, and excites expectations of a higher degree of success than hitherto attained by any other method.

The discrepancy in the results of this operation by different surgeons points to its explanation, I have long believed, in the peculiar mode of opening the abdomen and securing the pedicle. The silken, flax, or fishing-line cord, clamps, écraseur, acupressure, and now the actual cautery, have all been tried and commended; and the advocates of the respective plans have, with praiseworthy zeal, urged in turn their claims of superiority.

It is not my wish, nor does it comport with my present purpose, to enter into a review of the respective advantages of these several methods. I propose simply to append to the foregoing remarks the report of an operation of ovariotomy I performed, about eighteen months ago, in Coosa county, Alabama, in which I adopted the *intra-peritoneal treatment* of the pedicle with the silver ligature.

* North American Medico-Chirurgical Review, Nov., 1860.
† London Medico-Chirurgical Review, vol. ii., 1825.

I think the case possesses sufficient interest in several particulars to deserve a place upon record, certainly as illustrative of some of the advantages which, according to my judgment, might very well be claimed over some if not all the methods above named.

In this method of securing the pedicle I do not claim originality, nor am I prepared at this moment to say who is entitled to the credit of having first adopted it. Suffice it to say, the result of my operation was as satisfactory as it could have been, and, I think, fully justifies the importance that I am disposed to at ribute to the use of the silver ligature.

I give a condensed history of the case from the lengthy notes of my friend, Dr. James A. Kelly, the family physician, who had charge of it from the first inception of the disease to the final conclusion of the after-treatment of the operation To him, therefore, distinguished alike for his excellent judgment and practical knowledge of his profession, is due much of the credit of the success of the operation.

Mrs. G., æt. 25, under medium stature, delicate looking, though always healthy, was married at 19, and has two children, last born May, 1861.

Dr. K. was first called to see this patient, May, 1863, in an attack of uterine hæmorrhage, her friends believing she was pregnant and threatened with miscarriage. This yielded to ordinary treatment. Very soon afterwards, her abdomen began to enlarge, though menstruation continued. At the end of the seventh month, the patient, supposing herself pregnant, and becoming alarmed at not having quickened, again consulted Dr. K., who now made an examination and discovered, instead of pregnancy, a tumor in the left side. He accordingly put the patient under a course of treatment with mercurials, iodine, etc., and persisted in their use for several months, but with no apparent benefit, the tumor all the while gradually increasing in size.

Menstruation continued to recur regularly up to May, 1864, when it ceased entirely, having lasted one year after the first indication of the morbid growth. About this time, Dr. K. was summoned in great haste to the patient in a violent attack of nausea and vomiting. He found her with severe pain in the epigastric and umbilical regions, and, indeed, tenderness over the entire abdomen, which at this period seemed to be filled with the tumor, now found to be immovable. These symptoms were combated in accordance with the circumstances of the case.

After this rapid emaciation followed, and the increased distension of the abdomen, attended with dyspnœa, difficulty in lying, and œdema of the lower extremities, finally became so great that relief was sought in tapping. This operation was performed July, 1864, and three gallons of greenish fluid drawn off, the consistency of thin molasses. Although the tumor remained of large size after the tapping, still the patient for a time was relieved from her distressing symptoms. Her general health began now to fail more rapidly than it ever had done. The fluid soon reaccumulated, which necessitated tapping again. This operation was required to be repeated monthly, in order to relieve the patient of the distressing symptoms attending the recurring abdominal distension. At every sitting, excepting the first, from five to six gallons of a thin mucilaginous fluid would be drawn off. The last and seventh operation was performed January 7, 1865, and the whole amount of fluid drawn off, first to last, was about thirty-five gallons. At this stage of the case the patient expressed great desire to undergo the required operation for her permanent relief, having been fully informed of the dangers attending it. Dr. K. at once wrote to me at Montgomery, where I was then residing, to come at my earliest convenience prepared to operate in the case. January 13, the sixth day after the last tapping, I saw the patient, in consultation with Dr. Kelly, the first time.

For the examination she was placed upon a table in a half-recumbent posture, and the body partially exposed. Inspection of the abdomen, enormously distended, revealed an enlarged condition of the subcutaneous veins, and a very considerable protuberance just below and to the left of the umbilicus. Over this region fluctuation was quite perceptible, but nowhere else, at once distinguishing, in a marked degree, the enlargement from that of ascites. A point just below the umbilicus in the linea alba had always been selected for the operations of tapping. By the hand now pressed deeply into the abdomen, hard and soft portions of the immense morbid growth could be easily distinguished, but no movement of it whatever could be made perceptible. On introducing the finger into the vagina it came directly in contact with the cervix uteri, which was found to be normal in size and situation. I was indeed surprised at being able to reach the organ so readily. I next passed the sound into the cavity of the uterus, and with this I was able to bring the fundus of the organ, without difficulty, against the fingers of my left hand, pressed down deeply in the pelvis, thus assuring myself that this organ was in no way involved in the morbid growth. Upon withdrawing the sound now, and passing the finger into the utero-rectal pouch, it encountered a somewhat hard and nodulated body pressing down upon this portion of the vagina, and which could not be moved or displaced in any direction. This I could not regard as anything else than a part of the tumor in the abdomen, which was probably adherent to one or more of the pelvic viscera. With this view, therefore, of the desperate nature of the case, and having the full consent of the patient, we deemed it advisable at all events to open the abdomen by the *small incision*, and then be governed by such developments as would necessarily present themselves by this step of the operation. Accordingly a mild cathartic was ordered at bed-time, and instructions given for the operation the next day.

Operation.—The lower bowel having been washed out by a large enema of warm water, and the bladder emptied by the use of a catheter, the patient was placed upon the table in a half-recumbent posture, with her feet resting on a chair. The chloroform was now administered by Dr. Baker, my other and only assistant in the various steps of the operation being Dr. Kelly. The first incision was made, extending from the umbilicus along the linea alba to the symphysis pubis. The peritoneum on being exposed was next carefully opened on a grooved director, which brought into view the tumor, found adherent to the parietes of the abdomen, on each side of the incision, as far as could be seen or felt. These adhesions, however, I soon discovered, could be easily overcome with the handle of the scalpel; and to facilitate this step I at once extended my first incision to the ensiform cartilage, making it about fourteen inches in length, constituting the *large incision*, to which Dr. Clay very properly attaches much importance.

The work of breaking up adhesions was now fairly commenced, and having extended my dissections as far as I could on either side, the tumor still remained immovably fixed. I could not proceed further, therefore, without contracting its size, so I punctured the most prominent part of it, and let out about three gallons and a half of fluid of a mucilaginous character. The partial collapse of the tumor by this expedient enabled me to extend my explorations and dissections,

which soon brought into view extensive adhesions of the small intestines to the back side of the morbid growth. At the several points of attachment I took hold of the bowel lightly, and dissected it off, still using the handle of the scalpel, which was attended with little or no hæmorrhage. I now turned my attention again to the lateral adhesions, which were still found to be extensive and more resisting. It required nearly my full strength to sever them at some points; but, encouraged by the progress made and the almost total absence of hæmorrhage, I abstained from turning the edge of the knife against them, and to this circumstance, I am satisfied, much of the final success of the operation is to be ascribed.

Having completed our dissections laterally, and finding the tumor to be all free, excepting the pedicle, which proved to be from the left side of the uterus, I next passed my hand into the pelvis, and discovered the latter organ to be in its normal position, as I had been led to expect from my first vaginal examination. Between the uterus and rectum, however, and for some distance around the pelvis, there was found to exist an uneven and slightly yielding mass, connected with the abdominal portion of the tumor by an isthmus. So firmly was it packed in its position that I had considerable difficulty in dislodging it. Fortunately, however, there were no adhesions of this pelvic portion of the tumor, and when it was extricated the whole mass, now free, was turned to the right side of the patient, and there supported until the pedicle could be secured. This was found to be about three fingers in breadth and six or eight inches in length, the latter feature affording the explanation of the little influence exerted over the uterus in the ascent of the ovary to the abdomen, and its morbid growth there.

The pedicle was transfixed near the uterus by a needle armed with a double silver ligature, and each half of it constricted separately by tying the two ligatures on the opposite sides. This being done, and the ends of each of the wires cut off close to the knots, the pedicle was next severed, and the uterus allowed to drop into the pelvis. The right ovary was found to be normal.

The fluid that had escaped into the abdomen and pelvis was now lightly sponged out, and upon careful examination not the slightest oozing of blood could be seen from any point.

After waiting a few minutes, I proceeded to the closure of the wound, which I did with silver wire, secured on the principle of our button suture. The sutures were introduced at intervals of three-quarters of an inch, and each one had its respective button, two inches in length, half an inch in breadth, and saddle-shaped, standing directly across the approximated edges of the wound. Over the whole was placed a thick compress, and a wide roller then applied so as to give support to the entire abdomen.

The patient was now lifted into bed and one grain of morphine given. She remarked that she had not felt one particle of pain during the entire operation. The system sustained no shock, as indicated by the pulse, which was found to be less frequent, and with more volume than just before the operation was commenced. Perfect quietude was enjoined, and the temperature of the room to be kept day and night at a comfortable standard.

Tumor.—An examination of the growth showed it to be of the multilocular form. The large cyst that I punctured during the operation, on being laid open, was found to occupy rather a central position in the tumor, and had very thick and vascular walls. Projecting into this sac were to be seen numerous other cysts with flattened walls. These on being likewise laid open revealed other smaller cysts of the same character, all filled with fluids seeming to have undergone different transformations. They were generally of a mucilaginous, saponaceous, and gelatinous character. One cyst of considerable size was filled with a firm whitish substance, resembling curd very much, and which on being broken or torn in pieces presented a somewhat laminated appearance.

The tumor, after all the cysts of any size had been emptied, weighed fifteen pounds and a quarter, and if all the fluid could have been preserved that it contained the whole mass would not have weighed less than forty-five pounds.

After-treatment.—Six hours after the operation, the patient becoming a little restless, half a grain more of morphine was given. As there was some uneasiness of the bladder now the catheter was used, and instructions were given to use the instrument as often as relief of the organ required it. Morphine also instructed to be repeated *pro re natâ*, the object being to keep the patient fully under its influence during the critical stage of the treatment.

The entire management of the case was now resigned to Dr. Kelly, the family physician, and the following are his notes of progress:

"15th. Morning visit; found patient had slept at short intervals during the night; now restless; skin hot, constant thirst, pulse 130; introduced catheter and drew off six or seven ounces of urine; allowed free use of ice, and continued morphine as previously directed.

"16th. Morning visit; patient rested better last night; has just taken a cup of tea and eaten a wafer; less heat of skin, less thirst, pulse 120; some little tympanites and tenderness of the abdomen; ordered hot fomentations; previous treatment continued.

"17th. Morning visit; fomentations have been continued twenty-four hours; marked improvement; pulse 110; slept some through the night; more cheerful; took a cup of tea and a wafer last night and again this morning; fomentations discontinued; previous treatment the same.

"18th. Morning visit; slept well through the night; very little tenderness of abdomen; diet same; previous treatment continued.

"19th. Morning visit; rested well through the night; pulse 100; some appetite; only tea and wafers allowed.

"20th. Morning; slept well last night, and the general condition is as favorable as could be under the circumstances. No change made in the treatment up to the ninth day, when the patient was allowed chicken soup, and half of the sutures were removed. The tenth day the remainder were taken out, at which time union of the edges of the wound was found complete, excepting a couple of small points, and these closed in three or four days. On the eleventh day moved the bowels by an enema, and again on the thirteenth. It is now three weeks since the operation was performed, and the patient has a good appetite, and is able to walk about her room, complaining only of slight soreness in her left side. The cure may be considered complete."

Dr. Kelly wrote to me several weeks after sending me the above notes, to the effect that the patient went on improving as rapidly as could have been expected, until the end of the fourth week of the operation, at which time she was seized with dysentery, which proved very obstinate and came near resulting fatally. From this, however, he stated she had slowly recovered, and no further danger was apprehended. When I heard from our patient last, which was something over a year after the operation, she was said to be in a state of perfect health.

Original Lectures.

ON CHOLERA.

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Lecture VIII.—Part II.

Treatment of Cholera, concluded. Prevalence of Inflammatory conditions of the bowels during an epidemic. The prophylaxis of Cholera. Note.—*Review of the facts connected with the recent spread of the disease.*

If we now review this therapeutical record, I think we shall find that for the stage of diarrhœa moderate doses of some of the preparations of opium, the astringents, including the acetate of lead, camphor, rest in bed, a little perspiration, a very bland diet, excluding all solid food, except bread or rice, have received the almost unanimous approval of the profession; and that, if it seems to be demanded by any of the circumstances already enumerated, a cathartic dose of castor-oil may be admissible.

For the stage of rice-water discharges, I should be inclined to give the sulphuric acid a further trial. It is true that some of the physicians who have used it have found it of no avail, but others, as M. Worms, are enthusiastic and even eloquent in urging it upon the further notice of the profession. Chloroform, as prescribed by Dr. Hartshorne, is worthy of further trial; the addition of camphor will be advisable. Sulphur, as recommended by Dr. Goor, has not received sufficient attention to enable us to judge of its merits; it should not be condemned without learning more of its effects. Brandy in an infusion of common tea or coffee, one part to two, used as an enema after each alvine discharge, should be tried, although no theoretical reason occurs to my mind to sustain the recommendation. Dr. Johnson's reported cases and his high professional reputation will protect you in the use of castor-oil as he has used it, should you incline to the opinion that drugs have any power to eliminate the poison of the disease; but the very general approval of ice and cold drinks will more than justify you in using them, even though you adopt his plan in other respects. Calomel has still its advocates, but the evidence is decidedly opposed to its administration in large doses. The use of one or two moderate doses at the beginning of the treatment can be defended.

In the period of collapse we get but temporary and incomplete results from the use of such agents as electricity, the wet sheet, cold affusions, and inhalation of oxygen; while benefit is reported, within narrow limits, from frictions with warm towels or the warm hand, from the external application of heat to the limbs and body, and from the pretty free use of ice and cold water. The saline treatment of Stevens may still be tried. The injections of saline solutions into the veins will not be thought of except for extreme cases, and even in these, without a better method, and probably a different fluid, its propriety is questionable. To this stage Dr. Smith's brandy injections are still applicable if the discharges continue; or the antagonistic plan of Dr. Johnson, an emetic of salt and mustard followed by half-ounce doses of castor-oil. I have not spoken of the ice-bags of Dr. Chapman. This is a novelty. Dr. Chapman some years ago proposed to accomplish important results by the application of ice in some cases, and of warm water in others, contained in bags, to the back, with the view of changing the action of the ganglionic centres. The ice applied for a long period of time to the back, he thought, would diminish the activity of these ganglionic centres, and heat, he thought, would increase their activity. That heat or cold applied along the two sides of the spine should penetrate the great body of muscles and other structures which lie between the surface and the ganglionic centres in the abdomen, filled as these structures are with blood-vessels and circulating blood, is not probable. Such local applications may doubtless effect a change in the temperature of the whole body, and so of each particular part of it. But in no other way can I understand that they will materially affect the circulation in the ganglionic centres. Yet it will be strange if there is not a claim of success, and even possibly certificates to prove that these bags are curative. It is stated that Dr. Chapman went down to Southampton last fall and there applied his ice-bags, but if he or anybody has made any report of the effects produced by them, that report has not fallen under my notice.

A few remarks now regarding the stage of reaction. When the collapse passes off, it does so slowly; the pulse gradually returns at the wrist; the secretions of the kidneys will be gradually restored; the warmth of the surface will increase, with probably some perspiration, and the patient may recover. But there are dangers yet before him. They are chiefly of a typhoid or of an inflammatory character, or the consequence of accumulated urea; unless he has been injudiciously treated, when he may now feel the poisonous influence of opium, calomel, strychnine, or any active drug he may have taken during the preceding period. A leading danger seems to be from pneumonia, or there may be some continued diseased condition of the alimentary canal. Dysentery is occasionally seen. This is the period when diluents will be of service; the circulation is beginning to return to its natural condition in the alimentary canal, and fluids will be absorbed. It seems to me a great point in the treatment of this last stage of cholera is to restore to the blood its healthy constitution. If inflammations occur, antiphlogistic treatment cannot be adopted. You can hardly depend on the aid of diaphoretics, so much has the water of the blood been exhausted in the previous stages of the disease. There is danger of doing too much. I might almost say do nothing with drugs, for I think that in the restoration of health nature will do more than we can. The diluents, with or without salines, beef-tea, and nursing, seem to be especially appropriate.

One word with regard to food during cholera. If there is anything that a cholera patient, after the disease is fully established, has a full and unmixed disgust for, it is food. It is of little use to give him even beef-tea or milk. Any solid food is sure to be vomited. Make no attempt to urge food upon him, at any rate until you come to the period of reaction; then, after a little time, he will begin to take some of the dissolved foods, perhaps with a relish.

There is one fact in the general history of cholera epidemics on which, perhaps, I should be more emphatic than I have thus far been. It is the frequency of inflammatory conditions of the bowels in seasons when cholera prevails. I have already referred to the prevalence of diarrhœa that does not end in choleraic symptoms and is yet fatal, and to the increase of deaths by cholera infantum, cholera morbus, and dysentery. What I wish now to say is that, while the first three of these diseases prevail with the cholera, and for the most part cease as it ceases, dysentery, at least in this city, has outlived the cholera, and has been epidemic late in the season. This statement does not apply to the first epidemic; but you may remember that there were five

hundred and fifty deaths by dysentery in 1849 over and above those that were looked for on averaging the deaths in preceding years, and in 1854 the excess was more than nine hundred. The larger number of these, to the best of my recollection, occurred after cholera had nearly disappeared. This association or rather sequence has been frequently noticed. How much this fraternizing with diseases unquestionably inflammatory may bear on the question of the nature of the choleraic action in the alimentary canal, I leave for you to judge.

We now turn to the last topic which I propose to consider, that of prophylaxis—the mode of preventing the spread of cholera when it has made its invasion. The first question in this connexion is, Do we possess any means by which the cholera poison can be destroyed? Can we disinfect an infected region? We have but few real disinfectants. There are certain things which it is believed will change the chemical combinations of animal and perhaps other poisons that are floating in the air, and so destroy their poisonous properties. This, it is believed, is accomplished by adding or abstracting oxygen. Chlorine is an agent of this class, and so are bromine and iodine. The permanganate of potassa is highly valued as a disinfectant. Chloride of zinc and all the soluble salts of that metal have the reputation of being disinfectants; and the chloride certainly has power to prevent the decomposition of animal tissues. Sulphuric and sulphurous acids have a similar reputation. Coal-tar containing the carbolic acid, it is understood, suspends the process of decomposition, and arrests the formation of poisons which arise from this source. Quick-lime is regarded as serviceable in the same way, and also as a powerful absorbent; but after all there are, I think, but four true disinfectants. These are fresh air, pure water used freely to secure cleanliness, artificial heat, and a freezing temperature. The others may suspend dangerous chemical actions, or break up deleterious affinities, but they do not remove or destroy the sources of bad emanations.

A freezing temperature destroys most miasmatic poisons; it is not quite so clear that it destroys the poison of cholera. The disease has frequently prevailed in winter, but much more frequently has been suspended as cool or winter weather has come on. It is probable that in winter the poison is generated within dwellings, and kept in force by the in-door temperature, and that it is destructible by frost, as is the poison of yellow fever.

It is to be presumed that heat will destroy it, because it destroys every other animal or vegetable substance capable of producing disease in man that we are acquainteed with. But it is often difficult to apply it, and impossible thus to disinfect large regions. It may be applied to rooms and houses, but has to be carried as high as 210° to 220° Fah. to insure success. A ship could be thus disinfected if the owner would allow it, but such a degree of heat continued till it has penetrated all the ship acts on the timbers and injures them. Infected garments, bedding, and beds can be placed in a small apartment, or in a box or oven, and be purified by heat. Thus, then, while we do really possess a true disinfectant in this agent, we are very much limited in the use of it, and are obliged to depend in a great degree on those means which, perhaps, are less potent.

The first great element in prophylaxis is ventilation of every affected or threatened place. You remember that while cholera was prevailing in London and Paris, on days when the air was stagnant, the disease increased, and the mortality was greater the day after. There should be ventilation of houses, closets, bedding, garments, cellars, out-buildings, and everything we can reach; purification of cesspools and privies; purification of everything that can be purified by water. Regarding privies, if filth is to be removed in warm weather, it should be done under the protection of some of those disinfectants I have named. Chloride of lime or zinc, sulphuric acid, sulphate of iron or quick lime, or lime and charcoal, should be freely mixed with the materials carried through the streets, to render them inodorous, and as far as possible harmless. The open ground about dwellings and out-houses very often absorbs a great deal of material that can undergo decomposition; and it appears that the best mode of treating such soil is to cover it with lime or charcoal. Charcoal is recommended by the Council of Health in London, but it seems to me to be open to the objection that while it absorbs it retains, but does not decompose, effluvia; it will absorb a great amount of gaseous matter, but it retains it unchanged, and under other circumstances may give it out again. The ships that carried freshly burned charcoal to the Crimea were no less liable to the disease than others. Cellars should be carefully examined for accumulations of filth, and all decaying vegetables removed. In cities where there are pipes to convey refuse water and excrements into the street they may become obstructed, and the occupants of the house may not know it. Perhaps nothing is more likely to produce disease and favor an outbreak of cholera than an accumulation of the discharges from the human body in the soil pipes. In an early part of the course I told you what this would do in regard to fevers. You all know that filthy sewers produced a serious disease in Washington many years ago, known as diarrhœa. The influence of these things in producing diseases of the bowels is very well known, and that they should favor the cholera poison in producing its deadly effects we should naturally expect. In the country or in the neighborhood of cities, pigsties are not to be forgotten; when filthy, they are recognised among the cholera-aiding things, as are decomposing materials of every sort. The London council go so far as to say that manure heaps upon farms are capable of predisposing to cholera, and should be covered with lime to prevent emanations. It is even believed by some who have made these matters a study, that fertilizers from the barn and pig-pen, when spread upon the earth and ploughed into the ground, have an influence in producing sickness. I do not know how this is. Complete and perfect purification of houses and their surroundings, throughout every city, town, and village, is of the highest importance, as experience has fully demonstrated. In Philadelphia, in 1849, *early* and vigorous attempts were made to purify the city, in anticipation of the scourge. I cannot tell you how many loads of offensive material were removed from privies and other places where filth had accumulated, although I have seen the record. Philadelphia was in a good sanitary condition at the time of the invasion of the disease. It is stated as a result that there were but seven hundred and forty-seven deaths from cholera in that city, while New York had five thousand and seventy-one, the attempts at cleanliness not being made here until after the disease had appeared. Boston also prepared itself for the attack. I happened myself to be in that city about the time the cholera began, and remember the remarkable appearance of cleanliness in the streets. They had there six hundred and thirty three deaths from cholera. It is not likely that *all* this difference was to be ascribed to cleanliness alone.

There is something, you are aware, in the crowding of people together; large numbers dwelling in one house, which weighs greatly against New York in this

comparison, and it is one of the dangers most difficult to overcome. Crowds of newly arrived emigrants peculiarly exposed to cholera increase the mortality in our city, so that if the authorities had taken the same precautions and had been as early and vigorous in their sanitary labors, the balance in the account would still have been against New York.

The choice of water for drinking and culinary purposes, as you have inferred from what has been already said, is a leading consideration. The water of rivers that have the washings of villages and towns, or on which men live or travel in boats or vessels, must be regarded as very objectionable. Water containing lime in solution, which is laxative to many persons in health, is favorable to the progress of cholera. Such water, when no better can be obtained, should be boiled and cooled before it is used for drinking. Water obtained from the melting of ice would be less objectionable, even if the ice were obtained from the same water supply.

Garments or clothes that have become soiled by the dejections of cholera patients should be plunged at once into boiling water if practicable. When this cannot be done, these soiled materials may be placed in cold water temporarily, but disinfectants should be used. An ounce of chloride of lime to a gallon of water, or a little of the permanganate of potassa, just enough to make the water a little red, is regarded as sufficient for this purpose. As the dejections come from the patient, it is well under any circumstances, and very important if you adopt the theory of Dr. Snow, to place in the chamber vessel before it is used and each time after it is used and cleaned, a certain amount of dilute sulphuric acid or other disinfectant. In the country and in villages it is well always to have some of these disinfectants to use in the privies every day. Either chloride of lime or zinc, or sulphate of iron, or newly burned lime in powder, will answer about equally well.

Among the important measures relating to prophylaxis (as well as early treatment)—not the most important, for that is cleanliness—is one which I will now explain. In many towns in England systematic visits have been made and repeated at short intervals during an epidemic, from house to house, to ascertain the sanitary condition of each, and to learn whether any persons there are affected with diarrhœa, and if so to give them advice and treatment; and if there are none so affected, to teach all the inmates the importance of applying at once for aid if this early symptom manifest itself; and to make, in these visits, a proper disposition of those affected. This has been called the "house to house visitation," and the reports of their good effects are almost miraculous, indeed I think we may say hardly credible. We hear of forty-four thousand odd hundreds having diarrhœa, of whom only fifty-two had full cholera. There is a report from Glasgow that will illustrate what I mean. In that city, in 1849, the house to house visitation was adopted a little over one month from the time the disease began; and the report is that 13,039 persons having diarrhœa were seen, 979 of whom had rice-water purging, and that of this number only twenty-seven had real cholera. Now, we find by consulting the report of Gull & Baly that the whole number of deaths by cholera in Glasgow that season was 1,112, and that 898 of them occurred after the visitations had commenced. If of the thirteen thousand that the visitors saw only twenty-seven died, at least 871 must have been overlooked, and these all fatal cases. The visitors might very truly have said that these twenty-seven were all they had knowledge of, but it is plain they were not all that occurred. But notwithstanding the probably exaggerated reports of the value of these ministrations I have no doubt they can be made very highly useful, and amazingly diminish the mortality, and that they will be worth far more than all they can possibly cost in labor and money. As soon as cholera threatens an organization of this kind should be effected (and it is always best if voluntary), and the earlier after the invasion it commences its work the less will be the mortality. I make these remarks regarding the apparently exaggerated reports not in disparagement of the plan, but that you may not be disappointed when you come to apply it. If results should not be as encouraging as these appear to be, it will doubtless do a great deal of good.

Removal from an infected house or locality, if done early, is an important means of protection. It may be necessary to do this sometimes on a large scale. Then houses of refuge should be provided on high and dry sites, or tents may be pitched, for it is commonly in summer or mild weather that there is occasion to resort to this expedient. This must always be done by the authorities and at public expense. An individual or family may remove from an infected neighborhood to one that is healthy in the same city; or if persons seek safety in the country, they should go early in the epidemic, and choose a region which cholera does not usually visit. The sea-side is not always safe; mountainous regions are far better, or somewhat elevated places that are not on any of the chief lines of commerce and trade.

Now a word regarding the personal relations of cholera and what each one is to do or not to do for himself. Few facts seem to be better established than that in cholera seasons there is a wide-spread susceptibility to the disease, which most persons resist by force of good habits, a judicious diet, equanimity, in general a well regulated life, and an air to breathe which is not contaminated by decomposing organic matter, and many resist it without these advantages; and that some such susceptible persons, by debauch, by eating injudiciously in respect either to quantity or quality of food, by exhaustion of physical strength, by depressing exposure to inclement weather, etc., may induce an explosion of the disease. Among the articles of food to be avoided are pineapples, unripe potatoes, unripe fruit of every sort, cucumbers, stale meats, especially stale oysters and fish, boiled cabbage, and in general any article of food which habitually produces indigestion.

In 1832 we were taught that we must be in a certain degree abstinent, and that a full diet was dangerous, predisposing to cholera; but experience since then has dispossessed us of this idea. We now believe that persons in a cholera atmosphere should nourish themselves fairly, and that abstemiousness is dangerous; that the man who is in the habit of taking his wine at dinner should continue to do it when cholera prevails, and that the man who is habitually abstinent from wine or other alcoholics need not take them as a preventive; that established habits should not at that time be changed; and, indeed, we are brought to the sad statement that he who is a habitual toper cannot now wholly reform, but must take at least sufficient of his usual stimulus to keep up something like his usual condition; but Dr. Houston wisely advises, in effect, that he does not make the epidemic the occasion for deeper draughts or more frequent tippling. It is dangerous to change front in face of the enemy. Then as regards cleanliness, many of the poor, especially in a city like this, are strangely neglectful of personal cleanliness. Their garments are so saturated with the secretions and emanations of their bodies that they pollute the air of any apartment they enter, and the offensive odor is only removed by free ventilation. But how are you going to reach four or

five hundred thousand persons who are living in filthy clothes and filthy habits, and induce them to purify themselves? I believe it can be done only by lessons diffused among them by the missionary, I mean the house to house visitors, and by their clergy.

There can be little doubt that even in warm weather a covering of flannel for the body, and especially for the bowels, is of some importance. I remember to have seen a number of English officers just returned from the Crimean war (there had been cholera in the Crimea), and every one of them had his red Turkish sash which he had worn round about the bowels and back in successive layers, believing there was protection in it.

Fear predisposes to cholera. The allegory which I have somewhere seen regarding the plague in Egypt is applicable to this disease, deducting the licensed hyperbole. Those who have most fear are in the greatest danger. Perhaps you remember the story. I cannot render it literally, but it is somewhat in this wise: At one time, when the plague was about to visit Egypt, the good Genius of the land met the unwelcome visitor as he was passing the frontier, and they stopped for a parley. The good Genius said to the Plague, "Now, I pray you, spare my people." The Plague said, "I will be generous; I will take but three thousand." Time passed on, and these two imaginary persons met again upon the frontier, the good Genius returning as the Plague departed. The good Genius upbraided the Plague for breach of faith: "You promised to take but three thousand of my people, and now thirty thousand are in their graves." "I have kept my word," the Plague replied; "I took my three thousand, and Fear took the rest."

Now, gentlemen, my humble task is performed. These extraordinary audiences, large beyond precedent in this college, patient, and appreciative, have taught me the interest that is felt by students and physicians in the subject we have been considering. Anticipating something of this interest, I have made extensive research and a careful study of opinions and facts, that I might be able to present to you all that is known of this dreaded disease; or, at least, all that can aid in your first encounter with it. I have offered few original views, believing that a summary of the observation and experience of the whole profession is what is now demanded. Such a summary is due from the college to its students, and it has fallen to my lot in this matter to take the part of Curtius. And, now, what have we learned? We have learned three important practical facts: first, that cholera in collapse does not usually yield to treatment; second, that in the first or diarrhœal stage, almost all are quickly and easily cured; and third, that by the removal of all organic matter and refuse that is undergoing decay or fermentation, or by arresting these processes through the agency of "disinfectants" when removal is not practicable or is in itself dangerous, and by domestic and personal cleanliness, we may deprive the cholera poison of its most powerful ally; and if we do not exclude the disease from the purified locality, we can often deprive it of its character as a pestilence. The profession will do their best to render the first of these propositions untrue for the future; but while it remains true, you will do all in your power to break up the unholy and unclean alliances of the disease, and teach all the importance of the earliest possible arrest of a diarrhœa, *painless or not*, while an epidemic is prevailing or even threatening. Prevention is the great end to be attained. Xenophon likens the physician who only cures to the menders of torn clothes, while he holds the calling of him who preserves the health of the people to be more than kingly.

NOTE.

Aug. 15.—The five months that have elapsed since these lectures were delivered have added somewhat to the great cholera record; and though the facts are probably familiar to most of the readers of the RECORD, it may be well to bring them together and examine their bearings.

The steamship *England*, for New York, left Liverpool on the 28th of March, touching at Queenstown, Ireland, the 29th, having, on leaving the latter port, 1185 steerage passengers, mostly German and Irish, 17 saloon passengers, and a crew of 122. April 1, a German boy in the steerage was attacked with cholera and died. On the 3d the vessel experienced very heavy weather, and the hatches were battened down for two nights. When opened, it was found that another case of cholera had occurred, "which proved fatal in four hours; after this the disease spread rapidly." When she put into Halifax, on the 9th, the surgeon, Dr. McCullogh, reported 160 cases and 46 deaths. On the morning of the 11th the sick were removed from the *England* and placed on board the *Pyramus*, now converted into a hospital-ship, and about the same time the healthy passengers of the steerage were placed in encampments under tents. On the evening of the 11th it was found that forty persons had died in the last twelve hours, that there were then 100 sick, and that new cases were occurring every hour. On the 13th it was reported that the deaths were twenty-five a day, three or four of which were in the encampments, the others on board the *Pyramus*. The saloon passengers and the crew remained on board the *England*, but among them there was no sickness. Indeed, there was no cholera among the saloon passengers at any time, but before arriving at Halifax six of the crew had died of it. Many relatives of the sick followed the patients to the *Pyramus*, so that the inmates of this ship were about 400; among these there was a great deal of sickness. Diarrhœa prevailed extensively in the encampments, but there were only a few cases of full cholera.

On the 18th, the *England* "having been thoroughly scraped, scrubbed, and fumigated with chloride of lime and sulphuric acid," the healthy passengers were permitted to return to her, the greatest care being exercised "to prevent any but those in perfect health from being taken on board." The *England* steamed out of the harbor on the afternoon of the 18th of April, having been in port nine days, for New York, with 875 steerage and 16 saloon passengers, and a crew of 116. One saloon passenger had died of apoplexy.

Nearly a month later, that is, the 17th of May, the survivors of those that remained on board the *Pyramus*, forty-two in number, were sent to New York by the steamer *Louisa Moore*. Both these ships arrived in New York harbor without any more sickness. All the deaths among the passengers and crew up to the 18th were 250.

Seventeen men were sent down from Halifax to clean the ship *England* on the 11th. On the 13th one of these men was attacked with cholera and died in about four hours. He had volunteered to assist Dr. Garvie to remove the dead bodies from the *England*. But that this humane act could have had no influence in producing the disease is evident from the fact that the work lasted three hours, and he fell sick immediately after it was completed. He had fallen from the vessel into the water the day before, and was much exhausted before he could be rescued.

A pilot, with one other man in his boat, spoke the *England* when outside the harbor of Halifax, and, learning she was infected with cholera, he refused to go on

board, but took a line from the ship and was towed after her, giving directions from his boat. It is said that "the stench from the ship was intolerable." This was on the 9th. The pilot "was intoxicated for two days after, and Dr. Jennings found him at 7 P.M. on the 11th in collapse. He drank some gallons of water in which bicarbonate of soda was dissolved, and vomited and purged as much. He passed through the collapse and died the fourth day after in the typhoid stage. This man had a wife and five children. His wife was his only nurse and she escaped the disease, but the five children all had it, and two of them died. The pilot lived, not in Halifax, but at a place called Portuguese Cove.

Dr. Slayter, Health Officer, boarded the *England* on the 9th, and nobly volunteered to assist the physicians of the ship in taking care of the sick. He fell a victim to his generous impulses. He was attacked on the afternoon of the 16th and died the next morning. Dr. Gossip, Dr. Garvie, and Mr. F. F. Garvie, whom I am proud to recognise as a student of the College of Physicians and Surgeons, with equally noble purpose volunteered for similar duty and escaped the disease; as did the ship's surgeon and his assistant, and Dr. Voegles, a saloon passenger, who, on the breaking out of the disease, offered his services to the ship's surgeon, and continued with the sick till the *England* sailed from Halifax.

The only cases that occurred in Halifax, among persons that had not been in intercourse with the *England*, were in one family living near Freshwater Bridge. Dr. Woodill says that the father admitted that underclothes had been made for the child first attacked out of material picked up on the shore, "supposed to be from the *England*." Dr. Jennings says: "The child was lying on a mattress which I have heard was made from some of the bedding thrown from the ship *England*." The father would not admit this to Dr. Woodill, but his mode of answering questions relating to it left on this gentleman's mind the impression that there was something important in the matter which he wished to conceal. This family, consisting of father, mother, and two young children, were all sent to the City Hospital. The child first attacked had cholera symptoms on the 22d of April, having had diarrhœa for some days before, and died soon after being removed to the hospital. At that time the other child had diarrhœa, which was not controlled till there were some symptoms of collapse; she recovered. The mother also had diarrhœa, which was controlled. On the 25th, however, it recurred. On the morning of that day she washed some clothes soiled by the child then sick. In the afternoon she drank largely of water intended for washing, and was almost immediately seized with diarrhœa. She died on the 30th. The father had two attacks of diarrhœa while in the hospital, but did not otherwise suffer. No other cases occurred in Halifax or the neighborhood, unless a severe diarrhœa affecting the daughter of the man who was the pilot's companion in the boat should be added to the catalogue. She had washed her father's clothes after he returned from the ship, and fell sick the next day.

One fact not often noticed after cholera is recorded of cases at Halifax. The mother at the hospital, seized on the 25th, was recovering on the morning of the 27th. The blueness disappeared from all parts of the body except the end of the nose. "On the 28th, *gangrene* of the nose set in, and on the 29th sloughing had commenced. She lingered in a very low condition, the pulse gradually failing, until the 30th." Among the patients treated on the *England*, seven, when recovering from cholera, but still debilitated, had inflammation of the feet. "Two of these recovered perfectly; in the other five gangrene supervened, in two instances of the feet, in three of the toes only." These patients were still under treatment at the City Hospital on the 6th of June.

This account I have condensed from the official report of Dr. Gossip, who succeeded the lamented Slayter as Health Officer. I should add one other fact stated by Dr. Gossip, viz. that twelve of the steerage passengers escaped from the encampment, though it was on an island. We learn from other sources that one of these was subsequently attacked with cholera in Portland, Me.

Here we find a ship frightfully crowded, the hatches battened down upon 1184 breathing mortals, for two days, after one case of cholera had occurred among them. "After this the disease spread rapidly!" Did cholera ever fail to spread rapidly under such circumstances? One hundred and sixty cases in four days! In port, her living or rather dying freight is removed, the well separated from the sick, and the vessel is thoroughly "scraped, scrubbed, and fumigated" with *chlorine*. In *nine days* she receives again her healthy passengers, great pains being taken to exclude every grade and shade of diarrhœa. The vessel reaches the port of New York without any more sickness. The passengers are detained on board the vessel, for want of other quarantine accommodations, many days, yet no cholera occurs among them. The vessel was purified, the passengers were purified; there may be a question about their baggage.

Another similar fact deserves a permanent record. The steamship *Helvetia* left Liverpool, bound to New York, April 27, of the present year, having many hundred emigrants on board. Before she had reached Queenstown, Ireland, cholera broke out among her passengers, and again first among emigrants from the Continent, and a place where cholera was prevailing. The ship returned to Liverpool, the passengers are removed to hulks in the waters of that city, and are detained twenty-seven days. Meanwhile the vessel is inspected (purified?), and furnished with a new outfit of bedding and blankets. Seven hundred of her former passengers are reshipped, and she sails again from Liverpool on the 29th of May, reaches New York June 11, and there is no cholera on board, and none was known to follow her passengers after they were discharged from quarantine.

The term of quarantine at Halifax was dangerously short. There were cases of cholera in the encampments certainly during several of the seven days the passengers were detained on land. The period of incubation, according to Dr. Baly, may be six days; according to Pettenkofer, twenty-one; then the diarrhœal stage is often of several days' duration. Our neighbors naturally wished to be rid of their unwelcome visitor as soon as the laws of hospitality would sanction a dismissal, and their experiment proved successful, but I think should not be considered as a precedent. The Liverpool time, twenty-seven days, is much safer.

The *Medical and Surgical Recorder*, June 30, contains a letter which states that the ship *Agnes* was ready to sail from Antwerp for New York on the 13th of May last, when cholera suddenly broke out on board. The ship was detained till the 31st, when she sailed with her "well passengers," 235 in number. Fifty-six had died, and twenty-five were left in the hospital. On the breaking out of the disease, "the government officials and the Marine Commissioners took, with praiseworthy activity, all steps and enforced all regulations which were necessary to prevent the spread of

the fearful epidemic." The sick were sent to a fort. Whether those not attacked were removed from the ship we are not told. The cholera did reappear in this ship.

The Halifax pilot took a very dangerous position in relation to the *England*, being towed after the vessel under steam. Whatever may be the nature of the cholera poison, whether the result of decomposing excrements or a miasmatic product, with open ports it could hardly fail to fall into the wake of a moving steamer. He would have been far safer on deck. He doubtless in some way carried the disease into his family, perhaps through his own dejections, perhaps through a poison in his garments. The dates of the illness in the children are not given, further than that two had died and two were ill on the 20th of April. Then, regarding the family at Freshwater Bridge, there is a very strong probability that cholera in them was produced by a poison in the bedding they took from the water, although there is no direct proof that the bedding had belonged to the *England*. It was afloat in the harbor, and nobody knows any reason why any family or any other vessel should throw away bedding, while this vessel had the strongest motive for doing so. If these articles brought cholera with them, was it the dejections or a miasm that was the morbific agent?

The professional mind in this country and in England is inclining very strongly to the idea that the dejections are the real source of danger. In these lectures I have adopted the miasmatic theory, not because I have thought it could be demonstrated, but because it seemed to me to explain a larger number of acknowledged facts than any other. Most of these facts can undoubtedly be explained on the new German theory, and it may be that the further examination of it may give it the precedence. I have said (see p. 106) that the next epidemic will probably enable the profession to decide what measure of confidence is to be given to the views of Profs. Thiersch and Pettenkofer. Already something has been acquired. If the family at Freshwater Bridge were poisoned by anything in the articles of bedding, that poison might as reasonably be charged to the dejections with which they were in all probability soiled, as to a miasm of which they might be the carrier. The discharges of the Halifax pilot may certainly have bred the disease in his family.

The Medical Record, June 15, gives, from a German journal, some facts regarding the occurrence of cholera in Altenburg, Germany, last year. The readers of this Journal will remember that that disease was supposed to have been caused by the dejections of a child who had been only indirectly, if at all, exposed to cholera, and who "died of debility." The mother and child had travelled nine days and nine nights, the latter follow d by diarrhœa the whole time. They had passed by certain places in the vessel where cholera was raging. The mother was attacked with cholera three days after reaching Altenburg. Was it the child or the mother that brought the disease? If the child, as Pettenkofer believes, then a diarrhœa that ends in "debility" can produce the cholera. But both mother and child were probably exposed to the same external dangers.

There was an outbreak of cholera in or near Elizabeth, N. J., on the 19th of June of the present year, which was charged to the account of discharges of a diarrhœal character. No official account of this attack has yet appeared; but it is claimed that a person from one of the quarantined vessels in New York harbor, visited in a filthy lane, had diarrhœa, but not cholera, and that other persons using the same privy were the first to be attacked. Twenty-one, it is said, were stricken with it, of whom nine died. The Mayor of Elizabeth caused the locality (Dutch lane) to be purified immediately, and in less than a week the plague was stayed. He writes, June 27: "The reports in regard to cholera in Elizabeth have been greatly exaggerated. We have had a few cases in a low filthy and sparsely populated locality, but at this time there are no cases, and there have been none for the last three days." "The affected district," he says, "has been thoroughly cleansed and disinfected, and the disease has entirely disappeared." This unusual result was the fruit of unusual decision on the part of the Mayor. The good work was done at his own cost, without waiting for the, perhaps, tardy action of other branches of the government. Whether it is true or not that the disease had the origin here ascribed to it, it is claimed by Pettenkofer that the early diarrhœal discharges are no less dangerous than the "rice-water" discharges, and equally require disinfecting.

The medical officer of the Privy Council of England has issued his warning against drinking water that is in any degree tainted by house refuse or any other like kinds of filth, and breathing the air which is made foul with effluvia from the same sorts of impurities. He further announces his belief that all matters which cholera patients discharge from the stomach and bowels are infective. "*This is equally the case whether the patient suffers from the disease in its developed and alarming form, or from the slightest diarrhœa which the epidemic influence can produce.*" (Health Report, *N. Y. Daily Times*, August 11.)

In the same issue of the *Daily Times*, we find the following: "Patrick Kelly died of cholera at Hunter's Point on the 1st of August. The premises were disinfected under the direction of a sanitary officer. A portion of the clothing used about the patient, after what was regarded as a thorough application of chloride of soda, was washed, and no harm came of it. The heavier bed-clothing was treated in a tub with the same agent and afterwards buried, with strict orders that it was not to be exhumed, except under his direction, when disinfectants should be reapplied. But on the 4th, a Mrs. Dunn was made partially drunk, and persuaded by Mrs. Kelly to dig up the clothes and wash them. This she did that evening and the next (Sunday) morning. She went home drunk at five o'clock, Sunday morning. At eight P.M. of the same day, she was attacked with cholera, and died at six P.M. the next day. She dwelt in a shanty far removed from any cholera, and the attack seems traceable to the clothing. Inspector Trask, who reports this case, says that chloride of soda has no disinfecting power over cholera poison, and that only coal-tar can be trusted for complete disinfection, and in this opinion Dr. Harris concurs."—*Health Report.*

Statements like these deserve the fullest consideration. As I have already said, we may not reject the practical inferences of the German doctrine; and I am free to confess that, in the light of many facts which the present season has developed, I am half-inclined to adopt, not the refinements of Pettenkofer, but the more simple views of Thiersch. That the discharges are poisonous when first evacuated is disproved by all the considerations adduced to show that cholera is not contagious, as typhus or scarlet fever is. They are dangerous in consequence of some change that occurs in them after they are voided, if dangerous at all. On Thiersch's theory, I cannot account for the well known facts that the first cases in any locality are the most malignant, and that after a certain number of days the disease grows milder and the cases less numerous, till it ceases in that locality; in other words, when there is least of the cholera poison

the disease is most virulent, and after twenty days or so, when the cases are most numerous and the sources of the poison most abundant, the disease assumes a less malignant type. But I will not argue this point. The privies in which cholera discharges are deposited appear to be dangerous; the soiled beds, bedding, and garments appear to become dangerous. Let them be treated as the enemies of man, and let theories wait on further observation and study.

One discovery, growing out of theory to be sure, but itself worth more than all theories, has been strikingly confirmed in numerous instances the present year—the power of certain chemicals, called disinfectants, aided by the removal of filth, to stop the progress of cholera in limited localities, as a house or portion of a street, and by inference in all houses and streets. It is difficult, perhaps impossible, to trace relations between individual cases in a large city; but once more we have the fact that cholera did not appear in New York till after infected vessels had arrived in our harbor. If we can trust the newspaper reports, the disease broke out among the troops on Hart's Island, Governor's Island, and on a transport carrying soldiers to Tybee Island, only after sending to these places, and by this ship, recruits newly arrived in emigrant vessels; but wherever it has appeared within the jurisdiction of the Board of Health, out of public institutions, it has been met with a promptness and vigor not unexpected from such men as constitute that Board and deserving the highest praise. For three and a half months there have been scattered cases, and a few times small groups of cases occurring here; but I believe I announce the literal truth when I say that it has been promptly driven out of every house it has entered. The officers of the Board are ready at all hours, with their disinfectants distributed in wagons, horses harnessed, and medical officers in waiting, to drive to and disinfect any and every house where the disease appears. It has been thus systematically pursued from its very first occurrence to this moment. It has not been finally hunted down, and probably will not be till near winter, because the disease is rapidly increasing in the commercial towns of Europe, and also in the interior districts of Germany from which emigrants are daily arriving. In the month of May it is reported that 40,000 emigrants were landed in New York. Notwithstanding the vigilance of the quarantine officers, some of these will carry cholera with them, either by protracted incubation, or unreported diarrhœa, or in their unpurified baggage, and it will break out anew among us. The present indications are that deaths from cholera on Manhattan Island during the year will not exceed 500, while the deaths from ordinary causes will be as heretofore 22,000 or more. This low mortality is due to the unwearied and successful efforts of the Board of Health to expel it from every new lodgment it makes, to purify the city, and admonish citizens of their personal and domestic obligations. Up to August 17th, I am officially informed, excluding the islands in the East River, the deaths from cholera in New York have been only 247.

The cholera has lately broken out with great violence in the charitable and penal institutions of Blackwell's Island, destroying in the Workhouse two in every thirteen of its inmates in nine days. The following letter of Dr. Hamilton, giving an account of its arrest in this institution and its mitigation in the others (from the Health Report in the *Daily Times*), is worth volumes of argument, and should be republished in the medical journals at once.

No. 64 Madison avenue,
New York, Friday, Aug. 10, 1866.

E. Harris, M.D., *Corresponding Secretary M. B. H.:*

Sir:—The first case of cholera occurred in the Workhouse on the 28th of July, the last case on the 6th of August. The epidemic continued, therefore, nine days, during which period, of about 800 inmates, 123 died. I do not mention one case reported on the 8th of August, because, as I understand, the person was admitted only the night before; I do not think the disease was contracted in the Workhouse.

You know the building very well. It is admirably constructed for the purposes for which it is designed, and, so far as my observation extends, it is always perfectly clean. Until now, the inmates have been as healthy as this class of people are usually found to be.

The explanation of the rapid propagation and fatality of the disease after it once had gained admission was believed to be mainly confinement and crowding. It was observed that the cholera was for several days exclusively among the women. The women had the smallest apartments, were most crowded in their cells, and, with few exceptions, were employed within the building in close contact with each other during the day. The men were employed mostly in the quarries, out-doors.

On Wednesday, when the epidemic was at its height, the 1st of August, I gave my pledge to the Board of Commissioners and to Mr. Schultz, President of the Board of Health, in your presence, that I would drive the cholera from the Workhouse in from three to five days. I said this in no spirit of boasting, but in simple reliance on the well known and established laws of hygiene. The Commissioners executed literally and promptly every order which was given by the Committee.

The epidemic began to decline from the day they were fully carried out, and on Monday last the pledge was redeemed. The following is a summary of the sanitary means adopted:

The inmates were distributed as far as the vacant places in the building would permit; the cell-doors were left open at night; the night-buckets were supplied with disinfectants and left outside; the women's cooking-rooms were converted into hospital wards, and the women were kept out of doors from morning until night; corn-meal and molasses were taken from the diet table; coffee, tea, and vegetables were added; at night each inmate was required to take, whiskey one ounce, water three ounces, tincture of capsicum fifteen drops. [These people are our city vagrants, and probably are habitually intemperate.] A variety of disinfectants were employed freely and constantly in every vessel and closet which received the excreta; even the excreta from the stomach were disinfected immediately after they were received into a vessel or fell upon the floor; stoves were placed in each hospital ward to insure a draught; all windows were kept open day and night; the clothing taken from cholera patients was sent directly to the boilers; a ward was established for patients with the diarrhœa, and the value of this measure is shown by the fact that of the large number received into this ward only one died. It was difficult, however, to persuade these poor creatures to report themselves at this stage of the disease.

From the Workhouse the cholera has spread to every other building on the island, except, I think, to the Madhouse, the pavilion attached to the Male Almshouse, and the Fever Pavilion. In none, however, has it proved so fatal as in the Workhouse.

The same sanitary measures have been adopted, with slight modifications, in each department, but they cannot be applied with so much vigor to the Lunatic Asylum, the Almshouse, or the General Hospital. These buildings are all crowded, and the inmates cannot be scattered or turned out of doors; consequently, the cholera remains among them, but in a greatly mitigated form. In the Penitentiary it remained but two days.

Connected with the Almshouse are two well constructed pavilions, lying side by side, separated by only a few feet and a brick wall ten or twelve feet high. One is occupied by feeble old men, the other by the same class of old women. The only point of difference which I can discover is that at the time of the outbreak of the cholera the male pavilion contained only sixty-two persons, while the female contained ninety-nine. In the first there has not been one case of cholera; in the second thirty-one have died.

Of fourteen house-physicians and surgeons employed in these several buildings, some of whom have been in constant attendance upon the sick, not one has suffered from the epidemic.

Very respectfully yours,

(Signed) FRANK H. HAMILTON, M.D.

As to the character and kind of disinfectants to be used, it is reported that Pettenkofer is losing confidence in chloride of lime, but the medical officer of the Privy Council of England still has faith in it, and it appears to have been highly efficacious in New York the present season. A solution of the sulphate of iron, and carbolic acid in solution, for preventing noxious changes in the vomit and dejections, seem to possess universal confidence. But for a learned inquiry into the nature and uses of this class of chemicals, I refer the reader to Dr. Squibb's paper, published in the fifth and sixth numbers of this Journal, page 100.

While putting together everything which I have noticed that can be useful in the present crisis, I should reproduce the testimony of Dr. MacCormac, in favor of the prophylactic virtues of dilute sulphuric acid. I find the statement in the *Medical News and Library* for July, and credited to the *Medical Press and Circular*. He is visiting physician to the Belfast District Asylum. He says that in 1854 the cholera broke out in that institution "with startling suddenness, and forty of the inmates rapidly perished. Intimately convinced of the value of prevention, it occurred to me that, if I could not only arrest, but anticipate, the premonitory diarrhœa, I might arrest the disease. I immediately had prepared some dilute sulphuric acid, of whose general efficacy in the treatment of choleraic diarrhœa I had had ample experience, and gave to *every inmate* of the establishment a daily dose of about a drachm of the dilute acid in peppermint water. The existing cases having run their course to death or recovery, *no other instance of the malady occurred.*"

He thinks that, observing everywhere the rules of cleanliness, if the whole people, in epidemic seasons, would take this draught just in this way, daily, "it would make us masters of the situation, and render the ravages of cholera really and truly a thing of the past."

It may be remembered that up to the time of the delivering of these lectures some doubt rested on the precise mode by which cholera was imported into New York in 1832. The discussions in the Academy of Medicine have thrown some light on this question. I quote from a paper read June 6, 1866, by Dr. Elisha Harris, whose official positions for the last ten years have given him every opportunity to learn the truth. (*Bulletin of N. Y. Acad. Med.*, vol. iii., p. 106.) "The ensuing spring (1832) it (the cholera) quickly made its way through England, and, striking Dublin and Cork early in April, it rode in deadly triumph in one of the first emigrant ships that reached the port of New York *the first week in June.* The same week the emigrant ship *Carrick* sailed up the St. Lawrence with her dying company. After a brief detention of the first cholera ship in our harbor, during which entire secresy was observed at the port of New York respecting its invoice of cholera patients, the infected ship's company was quickly passed up the Hudson river, and along westward by the Erie Canal. Cholera appeared on some of these canal-boats, etc."

Dr. Long, of Whitehall, N. Y., in a letter to Dr. Harris, expresses the opinion that the first fatal case of cholera in the United States occurred near that village, June 15, 1832, in a person who had returned from Quebec, where "he was exposed to the disease."

Dr. Underhill stated, April 26 (*Bul.*, vol. iii., p. 51), that he treated two emigrants that had come from Quebec, both of whom were in the collapse of cholera when he first saw them; both died. This was "the last of June of that year (1832), a day or two before some deaths from that disease had occurred in this city." It would seem, then, that New York was invaded that year both by land and sea.

Here I beg the editor to allow me to correct a few errors that have escaped notice in correcting proofs. Two of them are of sufficient importance to have a conspicuous place. Lecture VI., p. 210, second column, thirty-sixth to twenty-eighth line from the bottom, the sentence should be: "In 1852, the number of deaths ascribed to cholera was 374, yet the disease was *not* considered epidemic;" p. 211, first column, at the end of the first paragraph, read: "The period (of incubation) does not *usually* exceed two to six days, but the initiatory diarrhœa may be protracted through many days." Lecture VII., p. 231, first column, read "*remaining*" before "population;" and then the correction will not be complete. Sandusky city had a population of 5,667 by a census completed only five days before it was assailed by cholera, and the health of the place was unusually good. It is estimated that about one thousand rema ned in the city when the disease had reached its height. The deaths from cholera were two hundred and eighty-five, or one in about three and a half of the "remaining population," or a fraction less than one in twenty of the whole population. P. 234, second column, thirty-first line from the top, for "four" read "five." Lecture VIII., pt. i., p. 254, first word, for "considering" read "considered;" p. 255, second column, eighteenth line from the bottom, for "which" read "whom."

QUARANTINES RECENTLY ESTABLISHED.—The U. S. Consul-General in Italy writes that, on the 20th ult., a quarantine of fifteen days was established by the Italian government for all vessels arriving at the ports of that kingdom from Liverpool (the only British port designated), Marseilles, and all other French ports on the Mediterranean, on account of the existence of the cholera in those localities.

The Medical Director of the Department of the Carolinas has issued an order establishing a quarantine of the same duration for all New York vessels bound for Charleston, S. C. But these restrictions upon commercial intercourse, in consequence of full representations to the War Department, will not be enforced in the waters of Savannah, Ga., except on positive proof of epidemic sickness on board.

HIPPOPHAGY IN PARIS.—Hippophagy has become a recognised subject of legislation in Paris. Special slaughter-houses must be erected for that "*viande.*" The joints must receive an official stamp. Horses which have died a natural death, sick horses, and horses slaughtered when in a state of fever, or wounded, or in an extremely bad condition, are not to be allowed for food.

Progress of Medical Science.

GREAT HARDNESS OF HEARING IN THE RIGHT EAR, CAUSED BY A FOREIGN BODY IN THE EXTERNAL AUDITORY CANAL. IT HAD BEEN THERE MANY YEARS, AND AFTER THE REMOVAL THE HEARING WAS PERFECTLY RESTORED.—This case is related by Dr. Chimani, Surgeon in the Imperial Royal Austrian Army. The patient, who was a recruit, stated that since he was 10 years old he had noticed a constant diminution in his hearing power, without any cause known to him. The watch was heard (should be heard from four to five feet) pressed on the auricle. The auditory canal was found filled with a black mass, the diagnosis "inspissated cerumen" made, and its removal attempted. It was removed by injections of lukewarm water, after softening with glycerine. An examination of the supposed plug of wax showed it to have a nucleus composed of a considerable number of wheat kernels. The drum was found concaver than normal, and reddened. The watch was heard about two feet immediately after the removal of the mass. The concavity of the drum was relieved by forcing in air, according to Politzer's method, the next day, and the hearing distance became normal.—*Archiv für Ohrenheilkunde, II. Band, 3 Heft.*

ABSORPTION POWER OF THE SKIN.—From numerous experiments, M. Scoutetten, the great authority upon mineral waters and their electricity, draws the following deductions as to the facility with which certain substances are absorbed by the skin: (1) The rapidity of absorption depends upon the tenuity of the molecules of the substance applied, and its facility of mixing with the fatty secretion of the skin. (2) Gases traverse the pores of the integument with great rapidity. (3) Liquids which pass easily into the gaseous state are quickly absorbed: such liquids are ether, chloroform, essential oils, benzoin, and turpentine (4) Solid bodies susceptible of volatilization also penetrate the skin rapidly: such are camphor, musk, castoreum, etc.; cantharides is absorbed because of its essential oil—cantharidine, which may be volatilized. (5) The solid bodies, non-volatile, require to be mixed with fatty or oily substances, and to be applied with friction. They thus unite with the natural fatty matter of the sebaceous glands, and become absorbed.—*Lancet.*

EXTRACTION OF FOREIGN BODY FROM PROSTATE.—*Dr. Olivares, in Valladolid,* relates a case in which a large pin was extracted from the prostate gland, sixteen years after it had been introduced. The patient was 32 years old; when he was 16 years old he had begun to practise masturbation, and was accustomed to irritate the urethra with a large pin. One day the pin was acidentally thrust by him beyond his reach. He paid no particular attention to the accident, continued in his occupation, and even served as a soldier seven years. On account of the pain which began to arise, he could not work after leaving the military service. He then sought medical advice. On the 10th of March, 1865, the writer saw him; the foreign body could not be detected in the most exact external examination, and the examination per anum also revealed nothing. A sound could not be introduced into the urethra, it giving rise to a spasmodic contraction, so that the sound would not pass over the membranous portion, but struck a foreign body. The patient indicated the middle of the perineum as the point in which the pain was experienced. An operation was undertaken for the patient's relief, although the author states that he "cut somewhat in the dark." The same incision as in the lateral operation of lithotomy.

The urethra was laid open for two inches. The finger detected nothing in the floor of the wound. There was nothing to do but to extend the incision posteriorly into the prostate and neck of the bladder. The bistoury opened a cavity in the prostate, from which black thick blood was evacuated, as if it were a varicose vein. In this hole the finger felt the point of the pin, which, after some widening of the wound, was seized and removed with the forceps.

The urethra remained permeable where the pin had lain in the prostate; a chalky envelope of 1 to 1½ lines in thickness had formed around it. A sound was introduced each time the patient wished to pass water, and thus a perineal fistula prevented, and the opening closed.—*El Siglo Méd.* 613, *October,* 1865. *Schmidt's Jahrbucher, No.* 5, 1866.

THE CELLS OF THE SYMPATHETIC NERVE.—The structure and relations of the cells in the sympathetic cord have been carefully and elaborately described in a memoir by M. Courvoisier in Herr Max Schultze's "Archiv für Microscopische Anatomie." These cells, according to this observer, are of two kinds—(*a*) those in which the nerve-fibres proceed from one pole of the cell (the frog), and (*b*) those in which the filaments proceed from both poles (birds, mammals, etc.) In some cases there are two attached fibres, in others there is a kind of network of filaments; when the former arrangement prevails, the fibres are two in number, and have the conformation described by Dr. Lionel Beale — one being straight, and the other spiral and forming a coil round the straight one. The straight fibre penetrates the cell-substance, and is connected with the nucleus, while the spiral one is connected with the nucleolus.—*Lancet.*

M. CORLIEU has determined a differential characteristic of idiopathic albuminuria and that caused by an alteration of the kidneys. It is the odor of the urine. In the nervous idiopathic affection asparagus communicates to it the peculiar odor which every one knows. When, on the other hand, there is any change in the structure of the kidneys, as in nephritis, no such odor is communicated. Turpentine and cubebs serve equally well as a diagnostic mark in such cases, according to M. Corlieu.—*Boston Medical and Surgical Journal.*

CRACKLING SOUND IN THE EAR. ITS CAUSE.—*Dr. Boeck, of Magdeburg,* relates a case of crackling sound, referred by the patient to the ear, which the rhinoscopic examination showed to depend upon a drawing back of the anterior wall of the Eustachian tube from the posterior, and was only referred to the middle ear by misapprehension. The lip of the tube was seen to be moved isochronically with the movements of the larynx and soft palate. When the crackling sound ceased, the lips of the tube remained still.

Dr. B. says: "I will not conceal the fact that it is inexplicable to me through what cause this clonic contraction of the different groups of muscles is excited isochronically with the pulse. There was no pathological condition of the heart shown on percussion."

Electricity, the induced current being used, benefited the patient; one electrode being placed on the mastoid process, the other on the muscles going from the os hyoides to the larynx. After the third sitting the clonic spasm in the indicated group of muscles had utterly ceased, and the patient only felt the crackling sound in his ear when he swallowed. This is heard, however, at this time by most persons. *Joh. Müller* referred this kind of sound in the ear to contraction of the tensor tympani muscle; but *Politzer* supposed that it was due to the cause which is proved in this case.—*Archiv für Ohrenheilkunde,* II. *Band,* 3 *Heft.*

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THE EXAMINATION FOR THE DEGREE OF DOCTOR OF MEDICINE.

THERE is nothing in the whole range of subjects connected with the general topic of medical education which should claim a more serious attention than the thoroughness and fairness of the final examinations in our medical colleges. Being, as it is, the only test relied upon for the fitness of the candidate to practise medicine and gain admission into the ranks of professional brotherhood, we cannot be too particular as to the manner in which such examinations should be conducted. If the strictest impartiality and the most rigid exactions are not carried out, the chances are very much against us for graduating those who are not only unqualified, but who may be a positive disgrace to our calling. We do not consider ourselves as going wide of the mark when we say that the examinations for the degree are, from the carelessness of the examiners and the deplorable want of interest manifested in the actual fitness of the candidate for graduation, hardly more than matters of form, and in too many instances the merest farces of what they should be.

Let us get a clear idea of the prevailing system of examinations. At the close of each session, the candidate, after having written his thesis, and fulfilled the requirements of law as to age, time of study, etc., is permitted to undergo his examination. These examinations are conducted by the professors of the college. Each professor examines the student upon subjects connected with his respective chair, and at the conclusion of the examining term all the candidates are voted upon in open faculty meeting. There are at present no requirements for more than one examination, and the aspirant for medical honors is very likely to be a perfect stranger to his teacher until they hold their first conversation in the examining-room. The instructor is then to judge by a few questions the results of the teaching which his pupil has received for three years!

When we consider that the temptation on the part of every faculty is necessarily to favor the college by having a large graduating class, the number in said class being considered as bearing a certain ratio to the whole number in attendance; and when we appreciate the desire, too often on personal grounds, to avoid the unpleasantries connected with a rejection, we can, without much difficulty, understand why such a comparatively large number pass. There is not a faculty in the land, who, after such an examination as we have sketched, can conscientiously satisfy themselves of the fitness of the graduate for the possession of a medical diploma. Notwithstanding this, however, we find that diplomas are not wanting in endorsers.

The difficulties which are in the way of reform, and should be overcome, are not weighty, and proper regulations could easily be effected without either damaging the interests of the different colleges or reflecting unpleasantly upon the teachers.

We must do away with the examination exclusively by the professors. The objections to this system are numerous enough to call for a change. In the first place, if the student is examined only by the professor, the questions will almost of necessity confine themselves only to such subjects as have been lectured upon; secondly, if questioned only upon such topics, these interrogatories may be few or many in proportion to the completeness of the course; thirdly, many teachers care only to judge of the effects of their instructions, and are only jealous of a proper appreciation of their individual views. Such are most sure to be dangerously partial. Again, if we suppose any personal friendship between professor and pupil to have sprung up, is it not probable that too much leniency may be shown? And lastly, when we consider that some pecuniary interest may attach itself to the passing of his examinant, dare we say that this may be another element in favor of a laxity in the examinations?

With a reasonable estimation of the enticements to which any faculty may subject itself to graduate all it can, it does not seem to us improper to take from such hands the controlling power. We would not go so far as to say that the professors should not examine them at all, although the following out of such a plan would be quite desirable; but we do think that competent and unprejudiced parties should be admitted as censors, who should have a vote in the faculty meeting upon the fitness of each candidate for his degree. These censors might either be selected by the trustees of the college or appointed by the State societies. With some of our institutions this has been done; but the faculty, being always in the majority, can act as they please independently of any opposing vote from the inspectors. It is, however, necessary, in order to have the censorial vote effective, that the number of censors should be at least equal to that of the faculty.

We see no reason why, besides allowing them a vote, they may not have, in conjunction with the faculty, all the

privileges of actual examiners. If care be taken in the selection of properly qualified persons for this purpose, no harm can come out of it. In fact, much good would result in compelling the student (who, examined by lot, would not be sure of meeting his teacher) to prepare himself on some of those important subjects that may not have been lectured upon. Then, again, it would be reasonable to suppose that the examinations could be otherwise more thorough as additional time could be given to each candidate. Here is another difficulty—the hurry which usually attends the examinations. Considered as it generally is an extra service, the examiners are too apt to slight the examinants, forgetting that as reliable caterers they are bound not only to see that the ingredients of the pudding are good and well put together, but that it is equally their duty to fairly test the palatability of the dish before "serving it up."

By way of stimulating the student to come up well prepared, it would be very desirable for each board to offer prizes for such as should receive the greatest number of votes. If such a plan should be deemed too expensive to be practicable, the names of the "honor men" should be published. The profession would then know which of the graduates are most entitled to confidence and future places of trust. This is followed out in the army and navy, and with a result for good which no reasonable person can question. At present the majority of the graduates are satisfied if they can "scrape through," and many are willing to run the risk of being rejected rather than exert themselves by a little extra study. If now a distinction be made by the establishment of a proper grade, pride on the one hand of standing high, and shame of being low on the other, would inevitably raise the standard, and we should besides have the means of settling satisfactorily the puzzling possibility of almost every other man "passing the best in his class."

Since our last notice of new medical journals, we have received several new exchanges.

First in order comes the *Southern Journal of the Medical Sciences*, a quarterly, which issued its first number in May, 1866. It was then under the editorship of Dr. E. D. Fenner, with whose untimely death our readers are already acquainted. The office of senior editorship is now occupied by Dr. D. Warren Brickell, with Drs. C. Beard and W. D. Mitchell as associates, and Drs. D. P. Fenner, A. W. Perry, and Joseph Holt as assistants. We have seen the two first numbers, and cannot speak too highly of the careful, judicious, and tasteful management of the periodical. It is a model quarterly, each number containing 200 pages, is well printed, contains excellently written articles, and should receive that substantial support which its intrinsic worth demands. The subscription price is $8.

Next from the same city we have the *New Orleans Medical and Surgical Journal*, which, having been suspended during the war, commences with the first of July its nineteenth volume. It is published every alternate month, and is under the editorial management of the following gentlemen: Professors Warren Stone and James Jones, and Drs. Stanford E. Chaille, and W. C. Nichols, all of the University of Louisiana. The length of time which this journal has been before the public, and the substantial reputation which it has gained for itself since its first issue in May, 1844, are sufficient guarantees of its worth. The subscription price is $8 per annum, in advance. It contains 142 pages.

The *Southern Medical and Surgical Journal, Augusta, Ga.*, is another old periodical which suspended publication during the war, and sends us its first issue of a new series on the first of July, 1866. This number is the commencement of the twenty-first volume. Prof. Joseph Jones, of the Medical College of Georgia, is the editor. It is published every alternate month, is an octavo, and each number is to contain 176 pages of reading-matter. It is made up of original articles, reviews, selections, correspondence, society proceedings, and editorial matter. The editor tells us that, without wishing to be exclusive, the journal will be considered as "a medium for the communication of the facts and discoveries tending to develop the material prosperity of the South, and especially for the recording and preserving of the valuable medical statistics and observations of the Confederate surgeons during the recent revolution." As an earnest of this intention we have presented to us in this first number some very valuable material from the Confederate medical service which no surgeon can well afford to be without.

The *Nashville Journal of Medicine and Surgery* also commences a new series with the first of July. The well known Dr. W. K. Bowling, Professor in the University of Nashville, is the editor, and Prof. Paul F. Eve, M.D., his assistant. It is published monthly, is of octavo size, and each number contains eighty pages. All the articles are well written, and are interesting and profitable to read; but without wishing to be invidious, we would call special attention to the one on the Health of the Southern Army, by Prof. Eve. This paper, part of which only appears in this number, promises to be an exceedingly valuable one, and should be especially read by military surgeons. We wish the journal the success which it enjoyed during the decade previous to its suspension in 1861. The subscription is $5 in advance.

We have given a very considerable amount of space in the present number to the remaining portion of Prof. Clark's last lecture on cholera. It will, however, be obvious to all who may peruse it that no apology is needed from us for so doing. In view of the earnest desire of the great majority of our readers to hear without further delay all that is to be said by the distinguished gentleman upon the all-absorbing topic, we cheerfully allow him some extra pages.

Reviews.

A Manual of the Principles of Surgery, based on Pathology, for Students. By Wm. Canniff, Licentiate of the Medical Board of Upper Canada, M.D. of University of New York, etc. Philadelphia: Lindsay & Blakiston, 1866.

The work before us is a very creditable one to the author, who informs us that this is his first essay in medical authorship. It is very well arranged, and though avowedly a compilation, he has shown most excellent and mature judgment as regards the sources from which his information has been obtained. All the recent views in pathology by the masters of the science are clearly set forth, elegantly figured, and comprehensively treated. The student will find this a most valuable work, and we would commend it to him for careful and diligent study, with the assurance that time thus spent cannot be more profitably employed. The practitioner, too, will consult his interest by glancing over its pages in order to satisfy himself of the most recent advances which have been made in surgical pathology. The publishers have done their duty, and have made it an ornament to the shelf.

Biographical Sketches of the Distinguished Surgeons of New York. By S. W. Francis, A.M., M.D., Fellow of the New York Academy of Medicine. New York: J. Bradburn. 16mo.

That biography should drift into eulogy seems to have attained the force and acceptance of a natural law. The aphorism, "*De mortuis nil nisi bonum*," has been, as far as just impressions are concerned, much too widely inculcated; while those panegyrics in disguise having the living for their subject, can scarcely be otherwise than extravagant in point of fact, if not in language. In such cases as the latter, the *imprimatur* is apt to prejudice us against the book, by substituting a present suspicion that there has been too much writing for the eye of the subject. Then, too, your enthusiast, very impressible and wondrously given to hobby-riding, filled with a blind admiration, and deriving color from his aliment, is calculated to be neither the faithful limner nor the discriminating judge. Thus, it may become in these as in other too gorgeously painted pictures, a very nice point to settle which is the greater sufferer, the canvas or the reputation of the artist? After all, we cannot but subscribe to the creed that posterity, and not individuals or self-constituted committees, must be the grand adjuster of reputations. The stern old Roman who refused his bust, with the sententious avowal that its absence from the forum might suggest an inquiry more flattering than its presence might elicit, unconsciously gave voice to the principle.

In the work before us, the writer seems sensible of the difficulties of his subject, but allows his enthusiasm to betray him into a certain fulsomeness of style. There is, besides, a palpable mannerism in the treatment of topics, which future experience in writing will undoubtedly correct. The chronicle is, as usual in all works of this class, that of genius, smitten with a divine discontent, surmounting difficulties not at all incident to the mass of humanity, and emerging from the ordeal with the inevitable halo, mellowed somewhat by a few qualifying *buts* for all failures. Upon the whole, we think it a serious matter to dub any man with the title of distinguished, unless indeed, to use a legal phrase, we have "a clear case," and a proper verdict has been passed upon the unfortunate after a due trial by a jury of his peers.

Reports of Societies.

NORTHERN MEDICAL ASSOCIATION OF PHILADELPHIA.

Meeting, June 22, 1866.

PROGRESSIVE MUSCULAR ATROPHY—ITS HISTORY—PATHOLOGY—ETIOLOGY—DIAGNOSIS AND THERAPEUTICS.

[*Concluded from Page* 290.]

Termination of the Disease.—The disease occurs principally among men. In fifty-five cases by Wachsmuth forty-six occurred in men. In ten cases occurring in the writer's practice, they were all males. Females seem free in all hereditary instances.

As to the age at which the disease appears. In forty-nine of Wachsmuth's cases twenty-two cases were men between thirty and fifty years of age; thirteen cases were under fifteen years; eight between fifteen and thirty, and six were over fifty years of age. In all cases occurring in children the disease has been inherited. Working-men principally are affected, especially when single sets of muscles have been much employed in daily work. The upper extremities are usually attacked first, and the right suffers oftener than the left arm. The affection will begin from the periphery, and gradually approach the trunk. Some muscles are predisposed, especially those of the hand; then the inter-osseous and lumbrical muscles, then the long supinator, the extensors and flexors, and the deltoid. The muscles of the eyes alone have never been seen to suffer.

The disease is always chronic in its course. It may stand still for some time and induce false hopes, but it subsequently proceeds again.

The disease may terminate in one of three ways. It may cease, and the diseased muscle become restored. It may stand still, and the muscles remain in the same condition without improvement or further derangement. It may proceed and become general.

The first termination is of rare occurrence, and can only happen if the muscles have not yet become fatty. A relapse is the usual result even after it has apparently ceased. The occurrence of a period of rest in the disease is much more frequent, and generally happens when the alteration in structure has not proceeded very far; but this result is always uncertain. In the generality of cases the disease proceeds until all motion is lost.

Such patients, however, will not always die from the disease itself, although it may have made considerable progress; but death is to be dreaded from the liability of the respiratory organs to cause suffocation under the slightest bronchial catarrh, the patient not having power sufficient to expectorate the accumulated mucus. In fifteen cases terminating fatally, death occurred five times from bronchitis, three times from paralysis of the lungs, once from bronchial catarrh, three times from variola, and once from phthisis pulmonalis.

Nature of the Disease.—Different observers have placed the seat of the disease in various parts of the motive apparatus. Some regard it as a primary affection of the spinal marrow; others as an affection of the interior roots of the spinal nerves; others as a primary degeneration of the peripheral nerves; others as a primary perturbation of nutrition proceeding from the muscles themselves; while the writer finds the cause in a disorder of the sympathetic nerve.

Aran was the first one to consider the disease to consist in a primary affection of the muscular tissue. He does not find it in the nerves, because some of the muscles that are supplied by the same nerves may be diseased, while others are not. According to him the

muscular system is the seat of great irritability previous to the occurrence of the adipose degeneration, and does not permit the nerves to take cognisance of it. Meryon makes the same proposition, thinking the disease to be owing to a diminution of assimilation. Duchenne and Wachsmuth are of the same opinion, the latter advancing the following arguments:—1st. That the centres of the nerves are always unaffected, while the nerves of the diseased muscles are occasionally atrophied. 2d. That the change of muscles is always the same, beginning with a diminution of their volume and weight, and terminating in adipose degeneration. 3d. That the atrophy and adipose degeneration of the muscles completely explain the paralysis described and observed. When atrophy of the interior roots of the spinal nerves is met with, Wachsmuth considers it as a consecutive or concomitant of the disease of the muscles. Meyer, who likewise approves these views, gives the following as his reasons:—1st. Dissection does not always reveal a change of the nerves. 2d. The changes of the fibres of the muscles, owing to the destruction of nutrition, agree with those that are found in progressive atrophy. 3d. Different degrees of the disease are simultaneously observed in progressive atrophy. 4th. Muscles will contract in response to galvanic irritation, as long as a part of the substance of the muscle remains healthy. 5th. Recovery has in some cases occurred. Duchenne communicates three cases of recovery, and Meyer has observed the patient to improve in one instance.

Hasse, Oppenheimer, and Friedberg agree with Meyer. Friedberg adduces the following arguments: 1st. That the ashy substance of the spinal marrow may be affected without producing progressive atrophy or paralysis of the muscles. 2d. That in progressive atrophy, other parts of the spinal marrow besides the ashy substance, as for instance the posterior chords in a case recorded by Virchow, have been found diseased. 3d. That the spinal marrow and the interior roots of the spinal nerves have been often unaffected, although the atrophy of the muscles was extensive. 4th. That the opinion of the roots of the spinal nerves being the cause of the disease does not correspond to observation; for, according to a law discovered by Rittervally, the nerves die from the centre towards the periphery, so that the muscles nearest the trunk are attacked first, and those more remote afterwards; which is not the case in atrophy. Moreover, the trunks of the nerves are often found entirely unaffected between their origin from the spinal marrow and their peripheral ramification.

That the progressive atrophy is owing to disease of the spinal column is asserted by Romberg and Leubuscher, though the latter did not find the least changes in either in the spinal marrow, or the nervous system in general. He thinks it possible that the disease is a consequence of softening of these parts, as he had found chiefly the interior chords and commissures of the spinal marrow diseased.

Cruveilhier, Schneevogt, and Valentiner suppose the cause of the disease to be due to the disorder of the interior roots of the spinal marrow. The first, however, suspects that its true seat is the ashy substance of that column. The others, who found softening of this column itself, look upon that as the most important cause.

Bell, Abercrombie, Thouvenet, and Guerin are of opinion that the disease proceeds from the affection of the peripheral nerves of the muscles.

The last opinion, which has been offered by Baerwinkle, demonstrates the disease to be the result of degeneration of the great sympathetic, based upon the dissection of Schneevogt, and some observations which he made during the progress of the disease. He denies that disease of the sensitive and motor nerves is able to cause atrophy, because the former are always intact, and the latter are seldom degenerated. His opinion is supported by the following reasons:

1st. That the temperature is abnormally increased in the diseased regions, which is said to be owing to the vessels being affected with paralysis by the degeneration of the sympathetic nerve, and thus becoming overcharged with blood, as has been proved by the experiments of Bernard upon dogs.

2d. That the pulse of the radial artery is rather full than small.

3d. That the pupils are contracted, and do not dilate in darkness.

4th. That the elasticity of the atrophied muscles is diminished.

5th. The results of the dissections made by Schneevogt. The softening of the spinal marrow which he has occasionally observed, he thinks to be due to atrophy of the sympathetic, and therefore secondary. That the degeneration of the sympathetic has been seen but once, he attributes to neglect in not having been sought after. He deems it probable that the disease must be sought for in the spinal ganglia of the sympathetic, especially in the inferior region of the cervical, and as far as the thoracic.

Baerwinkle's reasons, however, are not of such great importance that his views cannot be refuted. The abnormally increased temperature has already been discussed among the symptoms. The second argument does not seem admissible to the explanation of the until now obscure nature of the disease, as fulness of pulse of the brachial artery is not always present. But the writer agrees with Baerwinkle that the contraction of the pupils indicates an affection of the sympathetic nerve, since, in the degeneration of its cervical parts, the dilator muscle of the pupil becomes paralysed. The pupils showed themselves contracted, however, only in two cases. It may be undoubtedly supposed that the other observers took no notice of the pupils, but it can hardly be taken for granted that so many distinguished men had neglected to do so. With reference to the fourth argument, it is known that diseased muscles are deprived of elasticity owing to the change which their tissue undergoes; it would appear to the writer, therefore, that Baerwinkle has only stated that the diseased sympathetic nerve has merely altered the tissue of the muscles, so as to deprive them of their elasticity. Nevertheless, this cannot be the cause why progressive atrophy of the muscles will proceed from an affection of the sympathetic, since the same may always be seen when the nutrition may be alienated; but it can never be proved that the sympathetic itself will always suffer in such cases. As for the fifth argument raised upon a dissection by Schneevogt, and the supposition that the dissections of other observers would have shown the affection of the sympathetic if they had been thoroughly performed, it cannot be that this important fact would have been overlooked by such men as Cruveilhier, Aran, Meryon, and Virchow, who were highly interested in making out the true nature of the disease under consideration, and examined the par vagum in its whole course.

Then it occurs that Baerwinkle is unable to prove his proposition. The opinion of the writer is, that the theory of Aran, Meryon, etc., is the most convenient, for reasons already stated.

Ætiology.—The ætiology of this disease is often obscure, as it generally sets in without the patient being able to assign any adequate cause. The causes most frequent are labor, cold, and hereditary predisposition.

It occurs often with those who are required to labor hard and constantly, or who make the same movement repeatedly, keeping one set of muscles occupied exclusively. True, it is not explained why individual men who are often very strong, though they perform the same work as others, are affected, while the rest escape; and on this account it would appear requisite to ascribe the cause to predisposition. It often appears to result from cold; and rheumatism is accused by Wachsmuth, Thouvenet, etc. Many examples of hereditary predisposition are enumerated, from which it would appear that the disease is seldom transmitted to females. Meryon mentions four sons and their father as suffering from it, while six daughters remained unaffected. Again, three brothers were attacked, and the sisters escaped. Oppenheimer relates a case where seven male relatives were attacked; and Duchenne had four cases in males all related.

In addition to these causes, we have lesions, such as continued pressure on the nervous trunks, wounds, contusions, etc.

In two cases, reported by Aran and Oppenheimer, onanism appeared as the cause.

Valerius and Niepce observed one case resulting from syphilis.

Diagnosis.—Aran says we may suspect the disease as soon as we observe the interstices between the muscles becoming depressed; then if there should occur feebleness of the hand, without a known cause, the diagnosis is confirmed. It is requisite that these symptoms should terminate in paralysis. The diagnosis is made by the contraction of the figure, etc. The nerves of sensation generally are healthy, the muscles alone seeming the affected organs.

Paralysis from disease of the brain is distinguished from that of atrophy by its sudden inception, and there is also change in the senses generally. Hysterical paralysis is liable to be confounded with that of atrophy, but in the former the patient inclines to greater mobility of the limbs; and, again, the nutrition of the muscles is never diminished.

In paralysis from spinal affections, paraplegia is almost always encountered, and both inferior extremities are first affected, along with the bladder and rectum.

In so-called rheumatic paralysis, a certain series of muscles, which are served by the same nerve, will suffer; and both motor and sensitive nerves become affected, and the affected muscles will smart most painfully.

The traumatic paralysis can hardly be confounded with that of atrophy, as the wound is present, and the paralysis is confined to the part injured.

The distinction between lead paralysis and that from atrophy is not so easily made. In the former, certain muscles only are first affected. According to Duchenne, these are especially the extensor digitorum communis, the extensor proprius indicis, extensor digiti minimi, and extensor longus pollicis, while the flexors and supinators are healthy. In lead paralysis the contraction of the fibres is never observed. The differential diagnosis is also assisted by the cachexia, which is shown by universal emaciation, blue margins around the gums, and the singular hue of the face.

Paralysis from thrombosis, as described by Virchow, is distinguished from progressive atrophy of the muscles by the excessive pain which precedes it, the decreasing temperature in the affected parts, the weak pulse and the livid color, and frequently gangrene.

Galvanism affords a valuable aid to diagnosis, as it will give other results in other paralyses, as has been most clearly shown by Marshall Hall and Duchenne, who have demonstrated that in progressive atrophy, the affected muscles will react upon galvanic irritation as long as they contain uninjured fibres; while in lead poisoning they cease to contract from the beginning, except in very rare cases. In the paralysis of the brain, and in those from hysteria, the power of contraction always remains. In those called spinal and traumatic, the reaction upon galvanic irritation is at first unaltered; but in a little while it decreases, and at last ceases entirely.

Prognosis.—The prognosis differs with the causes. When owing to continuous labor or to lesion, a favorable termination may be expected; less favorable when rheumatism has been the cause; and most unfavorable when hereditary. According to Aran, when it progresses from the superior to the inferior parts of the body, it inclines to attack the whole body. Death never occurs suddenly.

Therapeutics.—It is most important to act on indications, if possible; difficult labor, or such as always engages the same set of muscles, should be abandoned. If, at the onset of the disease, this were possible, it would yield more frequently to judicious treatment. But such patients are generally poor, obliged to persevere in their toil, and rarely consult a physician until they have become almost entirely disabled. If cold have been the cause, anti-rheumatics should be employed. No hereditary cases have ever yet been cured. If the muscles have already undergone fatty degeneration, no medication can restore them.

It is generally useful to strengthen the system by tonics, as iron, bark, etc. Meyer recommends what are called "Moor-baths." Rich diet, together with proper exercise tending to strengthen the affected muscles, is advisable.

The most efficient of all medicaments is galvanism, when applied properly and perseveringly. Duchenne, and more lately Chamberlin, Roth, H. Ziermssen, and Meyer, have made most important experiments with this agent. The intra-muscular faradization appears to give a better result than the extra-muscular. The galvanic stream, however, should produce no pain from excessive power. If, at first, none at all should be excited by the greatest strength, its continued application may yet finally become successful. Galvanism, according to Duchenne, has cured not only severe cases but relapsed cases also.

In the treatment, it is very necessary to prevent the muscles of deglutition and respiration from becoming invaded by the disease.

EAST RIVER MEDICAL ASSOCIATION.

Stated Meeting, July 3, 1866.

Dr. John Hart, President, in the Chair.

CHOLERA-INFANTUM.

Dr. James H. Anderson read a paper upon Cholera-Infantum. The term itself was an unhappy one, but since it had come to designate a certain condition of things, he would use it, even under protest. Dr. M. L. Knapp seems to have been led into error by the designation, and in his monograph to have at once committed himself to the theory that the disease was, "in its essential characteristics, an Asiatic cholera, modified by the circumstances of age, with a scorbutic element superadded." This view, it is needless to say, has found few if any advocates.

Hygienic influences exert a power by no means contemptible over the disease. It is claimed that the proportional mortality is much less in Boston, Mass., where

greater care is exercised in the enforcement of sanitary requirements, than in New York and other large cities. This fact is even more patent in the case of the country; and in certain sections of the continent not over-populated, it is said that practitioners of experience have met with cases to be counted only by scores.

A high range of temperature also contributes its quota to the prevalence of the infantile scourge. The months of July, August, and September are always well represented upon the mortality bills of cities, provided the usual thermometrical range is maintained. Dr. James Stewart, in his classical and exhaustive essay, read some years ago before the Academy of Medicine, cites the year 1816, when but one death occurred from this complaint, as an exceedingly strong corroborative fact. The summer then, according to the current records of the period, was singularly cold; the thermometer, up to the 25th July, was from fifteen to twenty degrees below the usual temperature. After that period the mean temperature was only sixty degrees, and that of the three months, July, August, and September, sixty-eight degrees. This writer, therefore, lays down the proposition that cholera-infantum appears scarcely to exist when the mean temperature is about sixty degrees.

A certain humidity of the atmosphere, however, in conjunction with the elevated temperature, appears necessary for the development of the pestilence in all its virulence. Hence, in cities where the dew point is more readily developed than in the country, parents have come to look with dread upon the probable issue of the disease. Hence, too, tenement-houses, with their narrow rooms, low ceilings, and imperfect means of ventilation, conjoined with that universal dread of draughts of air so prevalent among the poorer classes, contribute more than their quota of victims. In these places moisture is the rule, not the exception.

Imperfect alimentation must likewise be credited with its share in the decimation of infants. Luxury being the natural ally of poverty, the greatest number of victims are to be found amid the extremes of society. Custom has also enjoined upon the first onset of this disease the exhibition of farinaceous articles of diet. Arrow-root, which serves to aggravate merely what was intended to be cured, has a most tenacious hold upon the popular imagination. There can be no marvel in the fact that children subjected to the distressing influences of long voyages, with their attendant hardships of exposure and scanty fare improperly served up, are largely represented in the mortality bills of the Commissioners of Emigration.

Age, as the term itself implies, has much to do with the subject under consideration. In the infantile stage some of the organs, though fully developed, are not equal and harmonious in the performance of their several functions. Others, again, are undergoing a retrograde metamorphosis. The rapid growth, and the almost continuous demands upon the digestive apparatus, call forth all the forces of the system, even to the reserves. Exhaustion cannot otherwise than follow extraordinary exertion, and thus destroy the constitutional equilibrium. It is therefore no matter of surprise that the disease is rare before the fifth month, and that the period of most frequent invasion is after the second year, when the incisors begin to appear. The alimentary organs and chylopoietic viscera are now about to take on a more exalted office; the increase in the size of the salivary glands and the manifestations of their exalted function, in what some mothers call "*drooling*," constitute only the neutral tints of the picture.

The duration of the disease is variable. Its continuance may extend over weeks and even months; but accurate observers claim that the more tractable cases end in resolution at the end of two or three weeks' supervision. The *mortality* as a whole is not greater than that of cholera-morbus; the majority of deaths occur under one year, and more especially among children of foreign parents. Some aver that the ratio of mortality mentioned is due to the depressing influences of our winter operating upon constitutions naturally over-susceptible; and that this class of children, owing to the poverty and improvidence of parents, is subjected to the worst hygienic influences. The *pathology* of the disease, with a few minor exceptions, is well established. The whole tract of the alimentary canal is more or less involved; the original seat of lesion is the mucous follicles, which latter, when dentition has commenced, secrete their peculiar viscid fluid more copiously than before. Congestion of the mucous membrane and its follicles culminates in a condition which nature seeks to balance by an inordinate secretion. Morbid action once established, inflammation or ulceration follows. But whether or not the liver is in a condition of true disease has not been determined with precision; still, the weight of testimony inclines in favor of the statement that the organ undergoes some alteration, either by slight congestion, enlargement, or perhaps partial induration, and thus retards the proper assimilation of food. As it is, however, this disputed point seems to have no therapeutical significance. In children of strumous diathesis, the mesenteric glands rarely fail to become implicated, a condition of things in chronic cases rarely failing to end in marasmus and death.

What is known as a *spurious hydrocephalus*, and which, by the way, constitutes a very unfavorable element in the prognosis, is a comatose condition resulting from exhaustion, or to speak more accurately, a diminished nutrition. Opium, in such cases as these, has been made, through the misapprehension of coroners' juries, to assume the *opprobrium mortis*, and really judicious practitioners have been unjustly censured. Indeed, it is in these very instances, where effect is confounded with cause, that suspicion is diverted from the unavoidable issue of the disease to the innocent attendant.

The Symptomatology.—A diarrhœa, accompanied by the pathognomonic sign of vomiting, first arrests the attention of the mother, whose fears are easily dissipated by the assurance of some experienced crone that this condition is due to the process of "teething." The stools, however, increase in frequency, vary in color from a yellow to all the various shades of green, and are more or less consistent. When the upper portion of the intestinal tract is implicated, the evacuations, frothy and acid, are changed but little by digestion; when, on the contrary, the lower portion is affected, the dejections are slimy and tinged with blood, while tenesmus is present in a greater or less degree. The vomiting at length becomes persistent; the countenance beseeching; the skin loose and shrivelled; the eyes sunken; the abdomen painful on pressure, tympanitic, and swollen; the surface hot; the tongue parched and covered with a light brown fur; and the pulse small and rapid. The patient, more listless than fretful, appealing for relief by moans, may also be attacked by spasms; and the disease, unchecked, may progress through the various stages of defective nutrition, until death drops the curtain upon a convulsion or an unconscious sleep.

In the *treatment* too much stress cannot be laid upon good air and proper food. The direct rays of the sun are to be avoided; since, in many cases, the disease manifests itself as a *coup de soleil*, and may be as sudden in invasion and termination. The crowded, narrow, sweltering room is to be abandoned for the voyage across the ferry; or better still, if the

means of the parents permit it, for a change of residence to the country. The maternal milk, nature's all-sufficient aliment, provided there be no qualitative deterioration, is of course the best; deficient quantity, being more easily remedied than imperfect quality, may be supplied by the addition of other proper pabula. These last may be enumerated as follows: concentrated beef-tea; Dr. Stewart's solution of gelatine in milk; underdone eggs, fish, and in fact all those substances most readily appropriated by the stomach alone. Milk diluted with lime-water has been found invaluable when the stomach has been found particularly irritable. This combination, occupying a middle ground between aliments and remedies, leads to the consideration of medicaments proper. The *Hydrarg. cum Cretâ* and *Subnit. Bismuth*, with or without the *Pulv. Ipecac. Comp.*, carried to the point of altering the character of the stools, constitute the plan of treatment adopted by most practitioners. Care must be exercised in the administration of *opium*, since the infantile constitution is peculiarly obnoxious to its influences; or, it should be said, as between a choice of evils, that this drug be abandoned altogether. It is to be borne in mind that neither the arrest of the diarrhœa nor the production of narcotism is to be the only goal to be reached in the face of the Protean forms so rapidly assumed by the disease. Indeed, it may be deemed a much more rational plan to initiate the treatment by administering a mild but efficient cathartic. The *Hydrarg. Submur.* thus exhibited has also proved a valuable anti-emetic. Still, for this latter purpose, *sinapisms* to the epigastrium, the *Sodæ Bicarb.* dissolved in *Aq. Camph.*, and the *Aq. Calcis* alone, are in greater repute. When the febrile excitement is not great, while at the same time the diarrhœa is both copious and frequent, our attention is directed to certain of the vegetable astringents; while some authorities advise a variation in the treatment by the use of alteratives night and morning. Such are the general measures to be adopted upon the onset of the disease; and the judicious practitioner who sees his case early not unfrequently has his efforts crowned with success. The *Cretæ Mistura*, with or without a moderate dose of the *Tinct. Opii Camph.*, and sometimes with the *Tinct. Kino* added, is a favorite remedy with many, after the alvine excretions have been changed in hue, etc., by the *Hydrarg. cum Cretâ*. Mild anodyne enemata, provided the tendency to rapid absorption is well borne in mind, have found advocates in those cases of tenesmus which often distress the patient. Stimulants during an impending collapse, followed by ferruginous tonics when the urgent symptoms have abated, *cæteris paribus*, may be advantageously administered. The *Lactate of Iron*, the *Citras Ferri et Quiniæ*, and the *Syr. Ferri Iodid.*, with or without cod-liver oil, are excellent during convalescence—a stage in which most remedies achieve their reputation. But our success may be only partial; the disease may simulate a dysentery, and, intractable, may end in death from sheer exhaustion, in spite of the vaunted efficacy of the mineral acids, the *Argent. Nit.*, the *Plumbi Diacet.*, and the *Ol. Terebinth.*

Dr. M. L. Smith thought that, among the list of remedies, *creasote* deserved honorable mention; in doses fractional of a drop he had found it to control vomiting after other means had signally failed. He preferred the *subcarbonate of bismuth* to the *subnitrate*, because he considered its antacid properties to be more decided.

In reply to Dr. Morse's question regarding the power of "swill milk" to aggravate or originate the disease, he recited a certain number of cases which occurred at Aurora, Ill., where "swill milk" was unknown.

Dr. John Shrady was of the opinion that the vegetable acids, so highly extolled by Dr. Knapp, derived their success, so far as it went, not so much from their anti-scorbutic properties as from the fact that after their introduction into the system they formed carbonates, etc., with other bases, and became in their reaction essentially alkaline.

The meeting then adjourned.

Correspondence.

STIMULATING INJECTIONS IN THE TREATMENT OF CHOLERA,

TO CONTROL THE PURGING AND VOMITING.

To the Editor of the Medical Record.

Sir—The attention of the profession has already been called to the treatment of cholera by stimulating injections, and during the past month a number of medical gentlemen have seen the most gratifying results. The object of this letter is to give more fully this plan of treatment, with such hints and suggestions as will enable the physician to obtain for himself and his patient the full benefit.

Cholera is generally so rapid in its progress that a large amount of fluid is lost and the patient in collapse before the physician reaches the case, and then another hour may be lost in getting ready to treat the patient. Every physician should know where he can put his hands on a syringe, and get a little good brandy. If he would be very prompt, he may have both in his wagon or in his pocket continually. Fifteen minutes may decide the fate of a valuable patient, for in that time prompt action may diminish the further loss of fluid, and thus save the sufferer.

Brandy and strong tea or coffee are thrown into the bowels immediately after every watery stool. If the case has not progressed far, with only a small loss of the circulating fluid, an ounce or an ounce and a half of brandy, with an equal quantity of tea or coffee, will be sufficient for each injection. If, on the other hand, the loss of serum has been great, and collapse imminent, two or three ounces of brandy may be used at each injection.

The prostration or shock to the nervous system is generally in proportion to the amount of fluid lost, and requires corresponding stimulation. The brandy is diluted one-half or more, to avoid the risk of producing inflammation of the mucous membrane of the intestines, and tea or coffee is used because they are grateful stimulants to the nervous system, the latter having been a favorite nervine with some of the European writers in the treatment of cholera.

Brandy and water will answer the purpose in the absence of tea and coffee, or till one or the other can be prepared. No time should be lost in giving the first injection, and they should be repeated promptly after each watery stool. Then the bowels are collapsed and empty, and the injection will come in contact with a large surface of the mucous membrane of the intestines, and make its stimulating impression upon a large expansion of that portion of the nervous system which presides over the alimentary canal, and which has become blunted or paralysed by the cholera poison. After one or two injections have been given, the alarmed and paralysed nervous system begins to feel the aid of the stimulation, and takes courage, and this expression of confidence extends to the whole abdominal ganglionic system; the blood-vessels begin to contract, congestion of the intestines is soon removed, the pouring out of serum into the bowels is checked, reaction is

established, and the whole alimentary canal is again under normal control.

Calomel, camphor, and quinine are given, as early in the disease as they can be retained in the stomach, in one or two grain doses every hour or two, till ten or twelve grains of each are given. Quinine is given as a tonic, and also to counteract any miasmatic influence that is likely to exist in this locality, and which may act some part in causing or complicating the disease.

If there is much pain in the stomach or bowels, small doses of opium are given merely to relieve such pain. Opium in large doses has done much harm in the treatment of cholera. It will not check the watery stools, while it will increase the nausea and vomiting. It will not relieve cramps in the extremities, except by narcotizing the brain, which is certainly injurious. There is generally more or less of colic or pain in the abdomen after the purging is checked, and then opium is given in moderate doses.

One of the most important points in the successful treatment of cholera is to keep all drinks from the patient, so long as there is vomiting or danger of vomiting; and if nurses will not rigidly enforce this rule, they had better retire, and give place to those who will. The thirst in cholera is a most distressing symptom, while the continued purging and vomiting are fatal ones.

Ice may be held in the mouth, and swallowed as fast as it will melt, and no faster, until the persistent nausea and vomiting shall subside. If patients are allowed to drink, they are very sure to vomit, and if they vomit they are almost certain to purge. If the stimulating injections will control the purging and vomiting, reaction must come on, giving the physician time and opportunity to pursue any treatment he thinks the case requires. No physician will expect to cure all cases of cholera with any treatment, but he will find this plan so simple and so successful to control the watery dejections that he will be glad to adopt it, at least until he can find something better.

The commending of this plan to further trial by Prof. Clark, in his lecture on the treatment of cholera, published in a preceding number of the RECORD (Aug. 1), will bring it before the profession of this country and Europe, and it will be thoroughly tested.

The case reported by Dr. Otis in the same paper will show how it succeeded in his hands. Drs. McLean, Emerson, Dawson, and Sterling, all Sanitary Inspectors, have treated cases in collapse on this plan, and saved their patients.

Truly yours,

O. H. SMITH, M D.

N. Y., 106 W. 34th street, Aug. 6, 1866.

CHARITABLE INSTITUTIONS IN CHICAGO—THE CHOLERA IN THAT CITY.

TO THE EDITOR OF THE MEDICAL RECORD.

CHICAGO, AUGUST 17, 1866.

SIR—I have before me the First Annual Report of the Chicago Hospital for Women and Children. It is a modest little document, which in a very few words informs the public of the amount of charity which has been dispensed to the deserving poor of the city through an unpretending rill, of whose existence perhaps few are yet aware. Eighteen months ago Miss Mary H. Thompson, M.D., came from the Eastern States to practise her chosen profession of medicine in Chicago. A graduate of the New England Female Medical College, and a student at the Demilt Dispensary in New York, she was well fitted for the position which she assumed. Finding our city almost destitute of those public charities which in older communities afford relief to the poor, she at once undertook to establish a hospital for women and children. With rare good sense and tireless patience this excellent lady labored until she had interested in the success of her project a number of our wealthiest and most influential citizens. A commodious dwelling-house in a central location was rented, and furnished with accommodations for fourteen patients. A dispensary for the benefit of out-patients was also provided in the basement of the building, and the doors were opened May 1st, 1865, for the reception of "women and children among the respectable poor in need of medical or surgical treatment." To Miss Thompson was confided the entire charge of the hospital, and she has ever since admirably performed the duties of superintendent, matron, and physician. That this is no sinecure may be inferred from the statement of the report, that "up to the 1st of May, 1866, 203 patients have been admitted into the hospital, and 544 have received medical and surgical aid at the dispensary." The number of obstetrical patients was thirty-six. Thirteen deaths have occurred in the house. One adult died of consumption, two of child-bed fever; three infants died of convulsions, three of cyanosis, and two of syphilis; two were still-born. The entire cost of the establishment, including the cost of outfit, etc., was $4,637.65.

Not far from the Hospital for Women and Children stands the recently completed building of the Chicago Eye and Ear Infirmary—a charity which has only reached the ninth year of its existence. Less spacious than your splendid infirmary, our western edifice possesses a more homelike appearance than is possible in a larger structure. For neatness, order, and comfort, it would scarcely be possible to surpass our infirmary. From the recent report of the surgeons, Drs. Holmes and Powell, I learn that "during the year ending May 1, 1866, five hundred and sixteen patients have been under treatment, making an aggregate of two thousand six hundred and forty-two that have been treated since the opening of the infirmary in 1858." This important charity is almost, if not entirely, supported by subscriptions collected from our benevolent citizens. The generosity of the people of Chicago is proverbial, and when one reflects upon the numberless appeals for aid which originate in the necessities of a youthful community, it seems remarkable. Our city is full of societies and incipient charities which are yet feeble and struggling for existence, so that our sympathies are not blunted by the consciousness of established provision for the poor, as is often the case where the public institutions are old, and amply endowed by the commonwealth.

The cholera has at length appeared in Chicago. Its existence in town was stoutly denied until the following interesting history forced us to believe the destroyer was among us: On Monday, the 6th of August, while holding an inquest at the railway station, the attention of the coroner was called to a dying emigrant who had been abandoned by his companions. He was a Dane, a Mormon, on his way to Salt Lake. With his party he reached the city by the Michigan Central Railroad, but was unable to proceed further. The coroner ordered his conveyance to the County Hospital, where the disease was recognised as cholera, and where he died within a few hours' time. Two days after, the daughter of the warden, and a patient who occupied the next bed, were attacked with the disease, and died in twenty-four hours. Patients in the other wards now began to manifest symptoms of cholera, and on the fifth day the house-physician was himself prostrated, but ultimately recovered. At the present date twenty

cases have been treated in the hospital, and six deaths have occurred. Seventeen of these cases, without question, originated in the hospital; the remaining three were emigrants admitted from without—one being the unfortunate Mormon who introduced the disease. The weather during the week ending August 11 was exceedingly damp and sultry, with frequent showers and wind from the southern quarters of the horizon. The present week has been very cool and clear, with fresh breezes from the northward. A corresponding amelioration in the symptoms of the disease has been generally observed, and the epidemic at the hospital is gradually subsiding. The health of the city is good, and not more than a dozen cases of cholera among citizens have been thus far reported. The health officers are taking measures to have the city cleansed, to have a cholera hospital erected, and to do various other needful things which a captious critic might suppose should have been regulated months ago. But our city fathers could not be persuaded, last spring, that cholera was imminent; and they struck from the appropriation bill every item that had the epidemic mark. Consequently, here we are, reading the bulletins of the New York Board of Health, and the cholera reports f om Cincinnati, from St. Louis, and from our own County Hospital, with a tranquillity that is truly oriental. Whatever happens we seem unlikely to die of fear or of such little precautions as are by other municipalities deemed necessary. *Nous verrons.* M.

Obituary.

JOHN T. CALHOUN, M.D., U.S.A.

James Theodore Calhoun was a native of Rahway, N. J. He was entered as a student of medicine in the office of Doctor Samuel Abernethy, of that place, in 1854, and subsequently attended lectures at the Universities of New York and Philadelphia, graduating at the latter institution in 1858. He then settled in his native place, but at the outbreak of the Rebellion in 1861 promptly threw up his practice, and obtained an appointment as Assistant Surgeon in the Fifth Regiment Excelsior (Sickles') Brigade. He accompanied his regiment to the seat of war, and in October of the same year was promoted Surgeon. With his regiment he participated in the siege of Yorktown, the battle of Williamsburg, the campaign before Richmond, and the operations of the army under General Pope. After the battle of Fredericksburg, in December, 1862, he appeared before the Army Examining Board, then in session at Philadelphia, and passed a brilliant examination, standing second in his class; and in April, 1863, was appointed Assistant Surgeon in the army. While awaiting his commission, his administrative ability and industry attracted the attention of Major-General Berry, who appointed him Surgeon-in-Chief of the First Division of the Third Army Corps, although he was at that time the youngest surgeon in the division. In this capacity he served until after the battle of Gettysburg, when he was for a short time Medical Director of the corps. In the fall of 1864 he was assigned to the charge of the Ward U. S. General Hospital, at Newark, N. J., a position which he filled with credit and distinction until the hospital was discontinued. For these and other services he received the brevets of Captain and Major, to date from March 13, 1865.

In June, 1866, he was assigned to duty as Post Surgeon, at Hart's Island, N. Y. harbor. Soon after his arrival the cholera made its appearance among the troops. With his customary energy and self-sacrificing spirit, he devoted himself to the sick around him, and, too intent on alleviating the sufferings of others to give heed to his own condition, took the disease, and died on the 19th of July.

Doctor Calhoun was no ordinary man. As a student he was quick to learn, of retentive memory, and steady application. In the line of duty he was untiring and energetic to the last, ever ready to expose himself, alike on the field of battle and in the hospital wards. He was a skilful surgeon, rapid and successful in his operations. He was a kind, genial, and sympathetic friend, both to the soldiers under his professional care and to his brother officers, who now mourn his untimely loss. The Medical Corps had no member more patriotic and loyal, none more devoted to the interests of the corps of which he was a member. He died as he had always lived, a bright example of courage, fidelity to duty, and high Christian manliness, leaving only to his friends the sad satisfaction of offering this poor tribute to his noble life and heroic death.—*Army and Navy Journal, Aug.* 4, 1866.

New Publications.

Books and Pamphlets Received.

On Spermatorrhœa; Its Causes, Symptomatology, Pathology, Prognosis, Diagnosis, and Treatment. By Roberts Bartholow, A.M., M.D., Professor of Physics and Medical Chemistry, Medical College of Ohio, etc., etc. New York; W. Wood & Co. 12mo. pp. 112.

Eighth Annual Report of the Chicago Charitable Eye and Ear Infirmary, Chicago, 1866.

Transactions of the Indiana State Medical Society, Indianapolis, 1866.

Medical News.

PERSONAL.

Drs. T. Cunningham and P. S. Rogers have been selected by the Medical Board for the three months' service as resident surgeons on Ward's Island, in anticipation of emergencies likely to arise from an increase of cholera.

Assist. Surgeon Webster Lindsly, U.S.A., died in Washington, D. C., on the morning of the 8th ult.

The death of Dr. Greville, the learned author of many valuable papers on Diatoms, was announced to the London Microscopical Society, June 13.

Dr. Thomas H. Webb, the Secretary of the Massachusetts Institute of Technology, died during the past month at Quincy, of cardiac disease.

Assistant-Surgeon W. H. Jones, and Acting Passed Assistant-Surgeon T. K. Chandler, U. S. Navy, have been ordered to the Navy Yard, Washington, D. C., from which Passed Assistant-Surgeon Newton H. Adams has been detached and ordered to the *Pensacola.*

Assistant Surgeon-James L. Flint has also been ordered to the *Pensacola.*

Passed-Assistant Surgeon J. S. Knight has been promoted Surgeon, commission to date July 29, 1866, *vice* A. W. H. Hawkins resigned.

Professor Procter, the editor of the *American Journal of Pharmacy,* has resigned the chair of Theory and Practice of Pharmacy, which he has filled for twenty years at the Philadelphia College of Pharmacy. The students have presented to him a splendid tea-

service as a testimonial of their appreciation of his long services and eminent acquirements.—*Boston Medical and Surgical Journal.*

To those desirous of entering the Medical Corps of the Army.—We have received from Surgeon-General Joseph K. Barnes, U.S.A., a "Memorandum for the Information of Persons desirous of entering the Medical Corps of the Army," from which we make the following extracts for those of our readers to whom they may apply:

"The number of vacancies now existing in the Medical Corps of the U. S. Army is sixty, forty-six of which are original vacancies created by the Act of Congress approved July 28, 1866. * * * * *

"All candidates for appointment in the Medical Corps must apply to the Surgeon-General, U. S. Army, for an invitation to appear before the Medical Examining Board. The application must be in the handwriting of the candidate, stating age and birthplace, and be accompanied by testimonials from professors of the college in which he graduated, or from other physicians of good repute. If the candidate has been in the medical service of the army during the war, the fact should be stated, together with his former rank, and time and place of service, and testimonials as to qualifications and character from the officers with whom he has served should also be forwarded.

"Candidates must be graduates of some regular medical college, proof of which must be submitted to the Board before examination.

"The morals, habits, and physical and mental qualifications of each candidate will be subjects for careful examination by the Board, and a favorable report will not be made in any case in which there is a reasonable doubt.

"The following will be the general plan of examination: 1. A short essay, either autobiographical or upon some professional subject—to be indicated by the Board. 2. Physical examination. This will be rigid, and each candidate will be required to certify that '*he labors under no mental or physical infirmity, nor disability of any kind, which can in any way interfere with the most efficient discharge of his duties in any climate.*' 3. Examination as to general aptitude and education. 4. Written examination on anatomy, physiology, hygiene, surgery, and practice of medicine. 5. Oral examination on each of the above-mentioned subjects, and also on obstetrics, general pathology, chemistry, toxicology, medical jurisprudence, and materia medica. 6. Clinical examination, medical and surgical, at a hospital. 7. Performance of surgical operations on the cadaver. The Board will deviate from this general plan whenever necessary, in such manner as they deem best to secure the interests of the service.

"The Board will report the merits of the candidates in the several branches of the examination, and their relative merit in the whole, according to which, if vacancies exist within two years thereafter, they will receive appointments and take rank in the Medical Corps. An applicant failing at one examination, may be allowed a second after one year, but not a third. No allowance will be made for the expenses of persons undergoing examination, as this is an indispensable prerequisite to appointment, but those who are approved and receive appointments will be entitled to transportation on their obeying their first order."

The aggregate amount receivable by an Assistant-Surgeon under three years' service is $120.83 per month. The Examining Board will assemble in New York on the 20th of September.

The Tennessee State Medical Society.—This Society held its thirty-third annual meeting at Nashville, April 20. Dr. Robert Martin was elected President for the ensuing year. The session was occupied in the business of reorganization. The next annual meeting will be held on the first Wednesday in May, 1867, in the same place.

American Medical Association.—The Prize Essay Committee of the American Medical Association request that all communications to be submitted to them be sent to their Chairman before the 15th day of March next, accompanied by a sealed envelope containing the name and address of the authors. The Association offers two prizes of one hundred dollars each, for the two best essays on any subject connected with the medical sciences. F. Donaldson, *Chairman;* W. Chew Van Bibber, Josiah Simpson, Edward Warren, C. C. Cox.

Baltimore, June 25, 1866.

N.B.—The medical journals throughout the country will please insert the above.

International Medical Congress.—The preliminary steps have been taken for the assembling in Paris, at the time of the Universal Exhibition, in 1867, of an International Medical Congress. With this view a central committee has been formed at Paris, which has elected the following officers: *President*, M. Bouillaud; *Vice-Presidents*, MM. Denonvilliers, Gavaret, and Tardieu; *Secretary*, M. Jacoud; *Treasurer*, M. E. Vidal.

Organization of the Cholera Hospital, Phila.—Dr. J. Howard Taylor has been appointed Physician-in-chief, and Dr. C. F. Laroche, Assistant, in the Christian Street Hospital, late Moyamensing Hall, now in the charge of the Board of Health, for the reception of cholera patients.

A Martyr to Medical Science.—An inquest was held in London, on July 10, upon the body of Mr. Joseph Toynbee, physician, of Saville Row, Burlington Gardens, whose death was caused by medical experiments. It was shown in evidence that he was in the habit of making experiments upon himself with chloroform, with the object of extending its use as a curative agent. On the afternoon of the 7th, his servant went into his room and found him lying on a sofa, with his mouth and nostrils covered with cotton wool. On two chairs near were sets of papers, and upon one of them a watch was laid. Thinking his master was asleep, the servant removed the cotton wool; and then, struck with something strange in the face, he ran for medical aid, but it was too late.

One of the memoranda referred to an experiment apparently tried on Thursday, viz.—"The effect of inhalation of the vapor of chloroform for singing in the ears, so as to be forced to the tympanum, either by being taken in by the breath through a towel or a sponge, producing a beneficial sensation of warmth." The second paper was an experiment on "The effect of chloroform combined with hydrocyanic acid." This was not classified, apparently waiting for a result. Close to Dr. Toynbee's hand, on a chair, were two bottles. One of them contained rectified ether, which had not been opened; the second was a little more than half full of hydrocyanic acid. There was also a machine made of India-rubber lying on the chair, used for injecting ether or other vapors; and afterwards was found underneath the sofa, just as his hand—that of a dead man's—would fall, a six-ounce bottle, completely empty, which had contained chloroform, but was dry and free from smell. The jury returned the following verdict:—"That the deceased met his death accidentally, while prosecuting his experiments, by inhaling a combination of chloroform and prussic acid, and the

jury desired to express their deep sympathy with the family of the unfortunate deceased gentleman."

A Clergyman's Prescription.—The *Pall Mall Gazette* informs us that "a little while since it was announced by a clergyman that 'a glass of sherry, with a biscuit, at 11 A.M., half a pint of bitter ale at an early dinner, and another glass of sherry in a cup of arrow-root at supper,' would be found efficacious in the prevention of cholera *among the laboring classes*!" A bottle or two of champagne at dinner is also recommended to the English "laboring classes!!"

Medical Humor.—At a late medical dinner in London, Sir Charles Locock, who has been nearest to the Queen in some of her most trying moments, was facetiously toasted as the "earliest friend" of the rising members of the Royal family. He was also congratulated on the honors he had attained after numerous and arduous "labors."

The Yellow Fever at Vera Cruz has nearly disappeared.

A Singular Recovery from Cholera.—The *Dublin Medical Press and Circular* quotes the following from the *Memorial d'Amiens*:—"During the summer of 1848, towards the end of June, the epidemic reached Brussels, where it attacked on Sunday, in the forenoon, General Chazal, Minister of War, who gradually sank, and by eleven on that night was in an almost hopeless state, notwithstanding the attendance of four medical men, including Dr. Sentin, the first surgeon of Brussels. At eight the following morning all was considered over, the face having assumed a blue tinge, and the pulse having ceased, so that the General's death was communicated to the royal family and announced in the public journals, whence it was copied throughout Europe. Meanwhile an accidental reference by General Jomini before the attendants in the sick-room, of a remedy had recourse to in Russia, where sacks filled with hot ashes were placed on the body of the patient, induced the General's aide-de-camp to try the plan, and after six hours of incessant perseverance the remedy proved efficacious, the body resuming its natural hue, and animation being restored. The General subsequently recovered, and is still Minister of War in Belgium."

Poisoning by Nitro-Glycerine.—A man employed at the Royal Arsenal, Woolwich, found a bottle containing some nitro-glycerine, which had been used for experimental shell-firing. He, thinking it was whiskey, drank a portion of it. He was instantly seized with great pain, and his body became suffused with a dark-blue tinge. Mr. Allinson, medical officer to the local Board of Health, from the imperfect evidence given by the bystanders, supposed that it was a case of cholera, and administered the usual remedies. The man only survived a few hours.—*Lancet.*"

Honors to a Geologist.—A bronze statue of André Dumont, the celebrated Belgian geologist, was erected at Liège last month. The King and Queen attended the opening ceremonies. Dumont was the author of a "Memoir of the Geology of the Province of Liège," for which he received the medal of the Belgian Academy and the Wollaston medal of the Geological Society of London in 1840.

A Worm-Lozenge Vender and Dr. Budd.—The *Western Mercury*, quoted by the *Dublin Medical Press and Circular*, gives the following account of a scene in Callington market:

"On the last market-day at the quiet town of Callington an amusing scene occurred. It appears that one of the gentry who vend worm-lozenges—worms being of course at the root of all diseases—was expatiating on the virtues of his nostrums, and in relating instances of their curative powers, he mentioned with no small delight a case in which he had been the means of saving the life of a patient of the greatest physician of the West of England, Dr. Budd, who had dismissed the patient as incurable. Unfortunately for the quack, 'the greatest physician in the West of England' was passing near his stall at the time, and hearing his name mentioned was naturally arrested at the sound, and listened. The Doctor's temper was aroused, and just saying, 'Let me get at him,' then and there administered sundry kicks on the nethermost person of the unfortunate quack, which had the effect of putting him *hors de combat*. Roars of laughter greeted the onset of the valiant doctor, in the midst of which the vender beat a hasty retreat. The doctor enjoyed the scene as much as the bystanders, and related the circumstance with much gusto many times during the day."

DIET FOR HOMŒOPATHIC PATIENTS.

Take a robin's leg—mind, the drumstick merely—
Put it in a tub filled with water nearly,
Set it out of doors, in a place that's shady,
Let it stand a week—three days, if for a lady.
Drop a spoonful into a five-pail kettle,
Which should be made of tin or any baser metal;
Fill the kettle up, put it on a-boiling,
Strain the liquor well, to prevent it oiling;
An atom add of salt, for thickening one rice kernel,
And use to light the fire "The Homœopathic Journal."
Let the liquor boil—half an hour, no longer
(If for a man, of course you'll make it stronger);
Should you now desire that the soup be flavory,
Stir it *once* around with a stick of savory.
When the broth is made, nothing can exceed it;
Then, three times a day, let the patient smell it.
If he chance to die, say 'twas nature did it,
If he chance to live, give the soup the credit.

Public Opinion.

PROGRESS OF THE CHOLERA.

In the United States.—Dr. Wm. Read, City Physician of Boston, writes: "The city of Boston is entirely free from Asiatic cholera, and has been throughout the season, with a single exception—the case of a soldier who died here on his way from Hart's Island, N. Y., to Manchester, N. H. In this case, the thorough eradication of all the sources of contagion, by burning and otherwise disinfecting, prevented the spread of the disease; and it is confidently hoped that similar success may attend like precautions in the future."

In New York city, since our last writing, when the cholera attained its acme, as far as the statistics of the present visitation may be quoted, there has been a gradual decrease in the number of cases both in the metropolis itself and in its immediate vicinity.

Regarding the outbreak in the Blackwell's Island Workhouse, Prof. Frank H. Hamilton has furnished the following among other particulars, which are of interest as far as the means adopted for its suppression are concerned: "The first case * * occurred on the 28th of July; the last * * on the 6th of August. The inmates were distributed as far as the vacant places in the building would permit; the cell doors were left open at night; the night buckets were supplied with disinfectants and left outside; the women's working-rooms were converted into hospital wards, and the women were kept out of doors from morning until night; corn-meal and molasses were taken from the diet table; coffee, tea, and vegetables were added; at

night each inmate was required to take, whiskey one ounce, water three ounces, tincture of capsicum fifteen drops. A variety of disinfectants were employed freely and constantly in every vessel and closet which received the excreta; even the excreta from the stomach were disinfected immediately after they were received into a vessel or had fallen upon the floor; stoves were placed in each hospital ward to insure a draught; all windows were kept open night and day; the clothing taken from cholera patients was sent directly to the boilers; a ward was established for patients with diarrhœa, and the value of this measure is shown by the fact that of the large number received into this ward only one died. It was difficult, however, to persuade these poor creatures to report themselves at this stage of the disease."

But the danger of a new infection cannot yet be said to have passed, since, on the 14th ult., the Hamburg steamer *Bavaria* made the port of New York, with four cases on board, and presented a mortuary record of five more, out of an original complement of 282 passengers. The ship *Johanna Martin*, from Antwerp, succeeded the Bavaria on the 16th ult, after a passage of sixty-two days, with 108 passengers and a crew of 16 men. During the voyage 18 deaths from cholera occurred, although when she arrived no sick could be found. Both vessels have been ordered to the Lower Bay. While Philadelphia has present cause for self-gratulation, and Richmond, Va., has suffered quite mildly, not to mention Baltimore, Md., where a case or two may have occurred, the news from the West, along the great routes of travel, is by no means cheering. The deaths in Cincinnati, Ohio, have increased from an aggregate of 610 in twelve days to a daily average of nearly 80, and this in spite of vigorous sanitary measures, the gratuitous issue to the poor of remedies intended to control the precursory diarrhœa, and a reënforced corps of district physicians. Newport Barracks, on the opposite shore, lost a recruit on the 11th ult.; and the Louisville (Ky.) Board of Health reports a few deaths, with the explanation that the cases were mostly imported. In St. Louis, Mo., a city of imperfect drainage, the visitation as yet exhibits no prospect of a decline; the record of a single day sums up 141 cases and 52 deaths. The steamer *Continental* also arrived at St. Louis on the 13th ult., with a detachment of the Sixteenth U. S. Colored Infantry, of whom 51 died during the passage from Cairo, Ill., and 26 remained under treatment. From St. Louis, too, the disease has been carried by the *Canada*, of the Northern Packet Line, to La Crosse, Wis.; while from Chicago, Ill., where the river has become substantially a stagnant bayou, we have advices indicating not only an invasion on the part of the pestilence, but the inauguration of what promises to be a very active campaign. From St. Paul, Min., we hear that two men have died of cholera, and that a quarantine is established at Kaposia, three miles above the city, where steamers will put off any cholera patients that may be on board. New Orleans, La., reports an increasing mortality at the rate of ten per cent., but the infected districts belong to the lower portions of the city, and the victims are to be found mostly among the blacks; and Galveston, Texas, still suffers in the persons of its garrison. Approaching the interior, we find that Memphis, Tennessee, has been visited, but not severely, although its physicians, evidently on the alert, have appointed a committee to confer with the Governor of the State, regarding the establishment of a river quarantine. To complete our chronicle, only a few statements need be added, one of which has special reference to the Tybee Island epidemic, and is on the authority of Dr. Thomas Sims, Special Health Officer, who avers that "475 men were stowed away in the forward part of the ship *San Salvador*, without a medical officer or medical supplies, and this in the face of the fact that before the steamer sailed two cases of cholera had appeared on Governor's Island, and diarrhœa was increasing among the men." Of the four hundred and seventy-five recruits put on board the *San Salvador* at New York, one hundred and seventy have already died. From this island the pestilence has been carried by deserting soldiers to Savannah, Ga., where it appeared simultaneously at several points, but has thus far failed to obtain any very firm foothold. Dr. Lawton, Surgeon-in-Chief of the Freedmen's Bureau in Georgia, characterizes the cases at the latter place as being well marked, but yielding readily to treatment.

In Europe.—The St. Petersburg correspondent of the *London Herald*, under date of July 19, writes that the disease "has increased its ravages considerably, and since it made its appearance on the 26th of June up to Monday last (July 16) its progress had been steady. Since then the number of daily cases has considerably fallen off. According to the official returns, published every morning in the *Police Gazette*, there had been in all 54 cases up to the 3d of July; on the 7th there were 44 new cases, and 18 deaths; on the 15th, 601 cases, and 150 deaths; on the 16th and 17th, the new cases were 522 and 425 respectively.

"From the commencement of the epidemic to the morning of the 17th, there were in all 3,039 cases, of which 962 were fatal. About two-thirds of the cholera patients are males, with a mortality of rather more than 30 per cent.; among the remaining third (females) the mortality is upwards of 33 per cent.; 418 cures are recorded, the other cases are still under treatment." The writer further ventures the opinion that "there is no appearance whatever of the epidemic assuming the alarming proportions it attained during the terrible visitations of 1830 and 1848."

Foreign files by the Java teem with "cholera" reports, not only from London and Liverpool, but most of the cities and towns throughout England.

One of the mortuary returns from the London Hospital alone recorded 67 deaths out of 124 cases; later advices, however, bring the gratifying intelligence that the disease in London itself is certainly on the wane.

Several fresh cases have occurred in Liverpool, and the type is said to be increasingly malignant. The applications for assistance are incessant, more than 200 cases having been treated at the dispensary on a single day. In Birkenhead a similar state of things prevails, but on a smaller scale; between the 19th and the 26th of July there were 191 cases, of which forty-four terminated fatally, and at Winsford thirteen cases were recorded. Southampton also suffers considerably, though not to the extent which, from the outbreak of the epidemic last year, was dreaded for the present. At this place Dr. Chapman's plan of applying ice bags to the spine of the patient has, after a careful series of experiments, been abandoned.

But little mention is made of the epidemic in Paris. Spa, the well known resort of European gamesters, has been visited for the first time in its history. As a matter of future reference we append the subjoined statistics, on the authority of a recent letter addressed to the Metropolitan Board of Health by Dr. E. Harris: "In the city of Amiens, 1,000 perished in the first few days out of a population of only 65,000; at Antwerp, from 40 to 50 have perished in a day; at Berlin, more than fifty deaths to 80 cases daily; at Delft, 220 deaths to 396 cases; and in various towns in Holland, this summer, 3,866 deaths in a total of 6,446 cases."

Original Communications.

VAGINAL FISTULES:

A FEW WORDS UPON THEIR ÆTIOLOGY, AND UPON SOME OF THE PAST AND PRESENT METHODS OF TREATMENT.

(Being a paper read before the State Medical Society of Indiana, May, 1866.)

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Our professional advance in recent years has been greater in no department of practice than in that which embraces the treatment of the medical and surgical diseases of women. This general assertion, which we believe will be readily accepted, finds one of its best illustrations in the history of methods of remedying vaginal fistules; such history, revealing an advance from occasional to almost constant cures, gives testimony that is indeed conclusive. The literature of this subject is scattered through two centuries, though of course much more abundant and valuable in the last fifty years than in the preceding one hundred and fifty. It is found in detached fragments in the periodicals and permanent volumes of our profession, but complete in none. I mean by this last to say that there is not, so far as I have been able to ascertain, in the English, French, or German language, a complete history of the different methods of treatment that have been devised and executed for the remedying of these lesions. Probably the best epitome is found in the work by Professor Günther, Drs. Schmidt, Hennig, and Berger, entitled *Lehre von den Operationem am decken Des Menschlichen Körpers*, published at Leipzig and Heidelberg, 1860; but satisfactory as this may be as to continental operators, we find it lamentably deficient as to American and British—but a very few of each mentioned—Mott, Rhea Barton, Hayward, Minturn, and Warren among the former, and Guthrie, Simpson, Collis, and Spencer Wells among the latter. In consequence of the absence of such complete history, various inaccuracies in reference to facts and dates, involving questions of priority or of originality, find place in reputable volumes. Some of these errors will be pointed out in the course of this communication, while others I intend publishing elsewhere at a no distant day.

By vaginal fistules we mean communications between the bladder and the vagina, the urethra and the same, and the rectum and the same, constituting in order, and this too is the order of relative frequency—*vesico-vaginal*, *urethro-vaginal*, or *recto-vaginal* fistules. In rare instances the ilium, either as congenital condition or as the consequence of disease or injury, has an opening into the vagina, constituting an intestino-vaginal fistula. The great rarity of this fistule, and its causation and cure both being generally different from those of the others, will render quite proper its exclusion from our present consideration.

The word fistula, meaning primarily a reed or tube, but ill expresses, in its strict etymologic sense, the physical characters of these lesions, and hence has been justly criticised, especially by Jobert and Vidal; these openings are not tubes or canals, they are gaps, rents, complete solutions of continuity, partial destructions of dividing walls. Nevertheless, the nomenclature of the disease is so well established that it is useless now even to suggest any change.

There is neither time nor need to dwell upon the injurious physical results of these fistules, nor upon the more painful moral consequences to their unfortunate subjects, utterly excluded from social pleasures and social duties. Nor are examples of these disorders exceedingly rare; I happen to know of three cases in one town which has a population of less than two thousand. Women are disposed to be very reticent even to those most intimate of their own sex, unless they should chance to be similar sufferers, in reference to any defect or disease of any portion of their sexual system; one who has thus suffered a long time might tell you of half a dozen others who suffered likewise, while a dozen who were well could not inform you of one who was ill.

But what are the causes of vaginal fistules? Cancerous ulcerations may produce them, while it is by no means certain that venereal will, though such results have been attributed to them; abscesses forming in the anterior or posterior wall of the vagina; the very awkward use of the catheter or of craniotomy instruments; puncture through the vagina of the distended bladder, mistaken for the fœtal membranes; cutting instruments in operations upon the neck of the womb; the extraction of the head of the child after craniotomy has been performed, the oftentimes ragged edges of the bones tearing the surfaces with which they are brought in contact; the distension of the bladder, or the presence of stone in this organ at labor, are among the causes. One word as to the last: In Baker Brown's work on Surgical Diseases of Women, second edition, Londons 1861, page 142, the following passage occurs: "This case is interesting as showing the mischief sometime, done during labor by the presence of a stone ni the bladder, a circumstance not mentioned, to my knowledge, by any author." Somewhat less than thirty years before (see London *Lancet*, 1836) Dieffenbach refers to a fistule thus caused; so that Mr. Brown's case of this kind was by no means the first mentioned.

But the most frequent cause of the injuries we are considering, especially of such as are remediable, is prolonged labor, and the resulting continued pressure of a part of the fœtal head upon some portion of the vaginal wall, anterior or posterior. When we recall the conformation of the true pelvis as well as that of the fœtal head; when we remember the relative lengths of the vagina in front and behind, the latter greater at any rate, and increased by labor so as to measure eleven or tweve inches; and remember likewise that occipito-anterior are much more frequent than occipito-posterior positions; and, finally, when we study the mechanism of labor, as it relates more especially to rotation upon anterior inclined planes under the pubic arch, and the subsequent fixedness of this portion of the cranial ellipse, while an arc of a circle is being described by the posterior —all these things properly weighed, we readily understand why the fistule is much oftener of the bladder, or of the urethra, than of the rectum. When we consider that the pressure is not uniform—cannot be so from the shape of the fœtal head, and from the differences in pelvic diameters—but is most strongly exerted upon some particular point, we know why the fistule is, as a general thing, limited in extent. Now what results from such continued pressure? The part thus pressed upon is drained of vital fluid—no more can replace the loss, as all access is cut off, and hence death. Subsequently nature establishes an inflammation to get rid of dead tissue; puerperal vaginitis, unless it is exceptionally by possibility, does not cause fistules; it only reveals the destruction which has occurred. It would seem needless to be so explicit upon this point; nevertheless, in a volume of much merit recently published, we are told that *vesico-vaginal fistulæ* frequently result from puerperal vaginitis. If "fifty per cent." of these fistules are preventable, as this author teaches, by means used after

delivery, then the question is not one of merely abstract and useless opinion.

But what do other authors teach?

Dessault gave essentially the view as to the causation which I have repeated here. Vidal says (*Traité de Pathologie Externe*), "The cause much most frequent, most potent of vesico-vaginal fistulæ, is the pressure of the head or other part of the child upon the bladder of the mother during a long and laborious accouchement. This pressure determines a mortification of a part of the bladder, and of the corresponding part of the vagina, with an inflammation more or less intense of the surrounding parts." Jobert, in his classic volume *Traité des Fistules, etc.*, in his article on the *œtiology of vesico-utero-vaginal fistules*, remarks—and the observation, if true in reference to these, is equally applicable to vesico-vaginal or recto-vaginal fistules: "These grave lesions are nearly always the result of a gangrene, determined by the compression of the child's head, or by the action of instruments which have been used in order to extract the infant." In Scanzoni (Dr. Gardner's translation, p. 503), we are taught that "the head of the fœtus, long retained in the pelvis, strangulates between it and the pubes, the anterior wall and the base of the bladder, and provokes in these parts an acute inflammation, followed by gangrene. Thus is formed an eschar of more or less extent, which at length falls off and leaves a urinary fistule." Our only remark upon this is that the "strangulation" is the commencing gangrene, and that inflammation ensues solely for the wise end of separating the living from the dead. Professor Simpson states that vesico-vaginal fistula "has been attributed, first, to the long continued pressure of the fœtal head on the maternal passages, producing mortification and sloughing of the vagina and part of the wall of the bladder; and, secondly, to direct injury from the use of instruments;" and subsequently refers to the former (though the words are somewhat changed and not quite so explicit), being the much more frequent cause.

It is scarcely necessary to continue the discussion of this part of our subject; enough testimony has been adduced, I believe, to cast some doubt upon, if not entirely to discredit, the creed that "fifty per cent." of the cases of vesico-vaginal fistules which now occur might be avoided by any means that can be invoked after labor, still less by the simple resort to the catheter every four hours in cases of "puerperal vaginitis."

A very brief consideration of some former methods of treatment, and of some points as to the present, is now proposed. Vidal states, in the volume to which reference was made, that the history of these lesions does not really commence until J. L. Petit, and asks whether the silence of preceding surgeons did not result from their belief in the incurability of the malady. Vidal was mistaken in attributing such date to this history, for before Petit was born Roonhuysen (1663) had suggested the two most essential parts of the operation, as we this day, more than two centuries after, practise it, to wit, paring the fistulous edges and bringing them together with sutures;* and Völter, of Wurtemburg, when Petit was but fifteen years of age, and therefore, it is to be presumed, not contributing largely to surgical science, in 1679, put in practice the plan advised by Roonhuysen, adding the introduction, immediately after the operation, of the catheter, and its retention until the removal of the sutures. Völter, too, first pointed out the fact that transverse fistules are more readily cured than others. Fatio (1792), of Basle, was the next to operate (using twisted sutures), according to Roonhuysen's plan; he operated upon his patient in the lithotomy position, which Baker Brown (*op. cit.*, p. 131) states was "proposed by myself!"

The next step, though hardly to be regarded as an advance, was the substitution for the suture of the tampon. This was practised by Petit and Hilscher, and it continued in vogue until the end of the last century, and, it is said, wase specially successfully used by Dessault and Chopart. The use of the catheter was conjoined with that of the tampon. A successful result, which we must believe exceptional, generally required from six months to a year! The disused suture was again brought into notice by Lewzisky in 1802, and by Nägelé in 1812: each recommended it, but neither used it. Nägelé suggested the *bistourie caché*, for denuding the fistulous edges, instead of curved scissors. In 1817 Schreger operated, using scissors, however, for resecting the edges; he appears to have used two forms of sutures—one the glover's suture; in the other the threads were conducted through a series of very small wooden balls, and fastened finally to the last ball in the series—an arrangement which would somewhat resemble the shotted wire suggested by Dr. Sims, and still used by some operators. In 1818 Cumin had a case in which the continuous use of the catheter alone effected a cure; and Guthrie, in 1823, had similar success with the catheter, the vagina having a sponge introduced into it; the treatment occupied six months. Then came an age of cauterization: tincture of cantharides, lunar caustic, *lapis infernalis*, acid-nitrate of mercury, and the actual cautery were used, but undoubtedly with a much greater number of failures than of successes. One of Dupuytren's patients was subjected to the actual cautery twenty-one times in ten months, and no cure. Some, as Failifer and Breschet, conjoined with cauterization approximation of the fistulous edges by means of hooked forceps. Malagodi, of Bologna, succeeded, in 1829—resecting the fistulous edges and uniting them with the twisted suture. Of Lallemand's "*sondeerigne*" the most that can be said is that, according to the testimony of Serres and Vidal, all the cases operated on in public by its inventor were failures; not a shadow of success attended its use; and no one can see why it should succeed any better in private than in hospital practice, although successful cases were reported.

I believe the first plastic operation for vesico-vaginal fistula was performed in 1830 by Dieffenbach, and it was finally a success Dr. Churchill states, in reference to "elythro-plastie" (Diseases of Women, fifth edition, 1864, p. 741), that Velpeau suggested this operation, and it was first performed by Jobert. But Jobert's first case was in March, 1835, five years subsequently to Dieffenbach's.*

There is not time to speak of Jobert's operations, important as they are, or of Wutzer's,† or of Simons', each possessing important original points; or of the methods pursued by various other operators, and the measure of success which has attended their procedures. To a single French operator only will I refer, and then present some of the important contributions made by some of our own countrymen; Vidal (*op. cit.*) describes what he terms the indirect method of treating vesico-

* The suture he advised was the interrupted.

* See the work by Prof. Günther and others, previously mentioned, and Jobert (*op. cit.*), as to this question of priority. Dieffenbach obtained his flap from the vagina, the restoration of the integrity of the canal being made with material from the canal itself; Jobert from one or other *labium*, or from the fold between the thigh and buttock.

† Some of the statistics collected by Wutzer are very interesting—such is the following in reference to the success of different methods of treatment: twenty cases of vesico-vaginal fistulæ were subjected to forty-eight operations—among which were elythroplastie, epissoraphie, cauterization, sntures, interrupted or twisted, and both—and only two cured! Such results are in striking contrast with those which are attained by the method now known abroad as the *American*—a title which may be accepted with justice and pride.

vaginal fistula, in case there has been such destruction of the vaginal wall that it is impossible to close the rent; this method is the closure of the vulva. In the volume to which reference was made in a former part of this paper, as containing what we believe an utterly untenable theory as to the production of "fifty per cent." of these fistules, we find that closure of the vulva "was suggested, if not practised, by Dr. Sims." This is a mistake; Dr. Sims may have done the operation, though I find no record of it; but certainly it was neither original in suggestion nor in execution, for Vidal performed it in 1832.

In our admiration for the achievements of Drs. Sims and Bozeman, we are in danger of forgetting two American surgeons who preceded them—"there were heroes before Agamemnon—" Dr. Hayward, of Massachusetts, and Dr. Mettauer, of Virginia; the latter, especially, should not be forgotten. Dr. Hayward's first case will be found reported in the *American Journal*, August, 1839; his method was really, though unconsciously, that which was suggested by Roonhuysen in 1663. Dr. Mettauer gives two cases, *American Journal*, 1847, in which he united the freshened edges of the fistula with lead sutures, and the result in one was a complete success. But to Dr. Sims belongs the great credit of the general use of silver sutures, though priority in the use of metallic sutures in the treatment of vaginal fistules belongs, as we have just seen, to Dr. Mettauer rather than to him. Nay, the priority must rest still further back. In the London *Lancet*, November, 1834, Mr. Gossett reports a case of vesico-vaginal fistula successfully treated with gilt silver-wire sutures.*

However, we should not forget that Dr. Physick, from observing the innocuousness of lead when imbedded in the animal tissues, suggested the use of ligatures made of this metal; and that Dr. Levert, of Mobile, acting upon this suggestion, in the year 1828, made some interesting experiments—detailed in the first number of the *American Journal of the Medical Sciences* for 1829—in which he demonstrated some of the advantages of tying arteries with metallic ligatures, in preference to those of gum elastic, silk, or grass—the metals experimented with being lead, gold, silver, and platinum. But the great practical lesson taught by Dr. Levert's experiments, he himself, still less the world, did not apprehend. The facts were all forgotten until our distinguished countryman, Dr. Sims, a man not less remarkable for his ingenuity than for his resolution and indefatigable industry, demonstrated by numerous successful results the great value of silver sutures in the treatment of vaginal fistules, giving them such just preëminence that even French surgeons, the slowest of all men to learn from any one not of their own country, are beginning to acknowledge it. (See notice in the last number (April) of the *British and Foreign Medico-Chirurgical Review* of a recent French work on Genito-urinary Fistula in the Female.)

To Dr. Sims belongs the credit of having called the attention of the profession to the advantage of what has been termed the *quadrupedal* position on the part of the patient; that is, the pelvis elevated and the shoulders much depressed, so that "the pelvic and abdominal viscera all gravitate towards the epigastric region, the atmosphere enters the vagina, and there pressing by its normal force soon stretches this canal to its utmost limits, affording an easy view of the os tincæ, fistula, etc." "This position," says Dr. Gardner, the translator of Scanzoni, "was discovered by Dr. Sims in 1845." I will not question its entire originality with Dr. S.; nevertheless, priority must again seek another. Seven years before this discovery, Mr. Liston (see London *Lancet*, June, 1838) had pointed out the value of this very position.*

The side position, however, as suggested by Dr. Sims, is regarded now as ordinarily preferable to either the "quadrupedal" or the "lithotomy." The duck-bill speculum of Dr. Sims has become an indispensable instrument, much superior to Gerdy's depressor or Günther's spatula.

Should anæsthesia be induced for the operation?

This is denied by some—(it will be observed that in this paper my chief endeavor is either to present facts not generally known, or else to discuss mooted points)—and there is a positive objection arising from the violent vomiting which frequently succeeds the administration of ether or choroform, and in consequence of which the sutures tear out, and the rent occurs anew. But when we consider that the suffering is often very severe from the operation, which is a tedious one, I think we ought, for the patient's sake, to have her anæsthetized. I am sure, too, that few who have operated and have experienced the annoyance and difficulty of verifying the fistulous edges from forcibly protruding verical or rectal mucous membrane—protrusions that will occur in spite of the patient's best efforts—will hesitate in the preference between *anœsthesia* and *œsthesia*, so far as the facility, safety, and celerity of their work are concerned. By all means, then, let chloroform or ether be given the patient.

Many surgical authors give directions as to the different steps of the operation that will often prove more embarrassing than useful. The fact is that in Surgery, as in Medicine, he who is a mere automaton, who works mechanically and does everything by rules, will often fail. It is much better in each practice to have well assured principles, and to distinctly recognise the ends to be accomplished; and then the determination of methods, the selection of means and steps, will be wisely made. Hence I do not believe that scissors with a particular curve, knives curved or angular, forceps of a particular construction, should be regarded as essential for the operator. Each one must select for himself, according to his own convenience and the special character of the case. So, too, in reference to the extent to which the fistulous edges should be denuded, no absolute rule should be given: the end should be to obtain not only fresh, but even and healthy surfaces. As to whether this denudation, in vesico-vaginal fistule, should be by bevelling or by removing a strip of mucous membrane, that, probably, may be best determined by the position of the fistule. In reference to this point it is worth while to present the following extract from Savage on the Female Pelvic Organs, (London, 1863): "Although the mucous membrane of the vagina never quits its subjacent attachments enough to form a mucous prolapse, nothing is easier than to detach it by dissection; as the average thickness of the vagina rarely exceeds a line, the bevelled resections of the margins of the wound, in the operation for vesico-vaginal fistule, will probably be abandoned in favor of the plan of removing a concentric strip of mucous membrane. If the fistule happens to be in the transverse direction, the former plan can scarcely fail to wound some of the large vaginal arteries, and perhaps the ureters; by the latter

* Baker Brown says "gold" sutures, but Holmes's System of Surgery and the *Lancet* both state "silver-gilt."

* Likewise in South's Chelius, the American reprint of which was published in 1847, in the description of Wutzer's method of operating—this was before 1841—we read that "the patient should be placed on her belly, upon a table covered with a mattress, so that she may kneel near its edge, with her head and chest bent forwards, and supported with small bolsters."

In the London *Lancet*, November 26, 1836, Mr. Barter reports a "case of vesico-vaginal fistula successfully treated;" the patient was "directed to lie on her knees and elbows" while the actual cautery was applied.

there is gained a much larger adhesive surface, with absolutely no risk of the above-named complications, which so often mar the best executed operations."

Most operators prefer silver wire for sutures, though Prof. Simpson selects iron, mainly on the ground that, taking a thread of each metal of equal diameters, the silver will sustain a weight of only nine pounds, the iron a weight of twenty-six pounds. When Dr. Mettauer succeeded with ligatures of lead, which really has only one-ninth the strength of silver, it really seems to me that Prof. Simpson's preference is without valid reason; there is no danger of failure from the weakness of properly annealed silver wire.

Various needles have been invented for the introduction of the sutures. The most ingenious of these, probably, is the tubular needle of Startin, as modified by Mr. Hilliard, of Glasgow, one of the best instrument-makers in the world. But I must say that after first trying Hilliard's needle, and the broad curved needle,* which is probably oftenest resorted to by operators, I much prefer the needle invented by Dr. Emmet, Dr. Sims's able successor in the Woman's Hospital, New York city. The flat needle is objectionable from its making an incised wound; while Emmet's, a small round needle with a slight curve near its point, and armed with silk, to which the wire is attached, makes a punctured wound. After the introduction of the sutures, the edges of the fistule are placed and kept in apposition by simply twisting the two ends of each suture, this twisting being readily effected by a single pair of forceps. Where other means are desired for fixing the wires, probably the best contrivance is the nipple shield of Hilliard, which is a decided improvement upon Bozeman's shield.

Various points of interest in reference to the operation itself, and in reference to the after-treatment, suggest themselves, but to a single one, relating to the latter, will I now refer. It is usually directed by our surgical authors that a catheter should be introduced immediately after the operation, and retained during the process of cure. Dr. Sims has invented an S-shaped metallic instrument which is self-retaining

Here, again, we protest against a rule. Let us see if we can find a principle. What is the danger from the presence of a small quantity of urine, for example, such an amount as would accumulate in two, three, or four hours? Not surely in ordinary cases where there has not been from the original lesion a great loss of substance, or from the long continuance of the malady a great diminution of capacity—vesical distension and thence rupture of the just united edges, nor indeed leakage between them—the sutures ought to be tight enough to prevent the latter, at any rate the inflammatory swelling will. But what we regard as the great danger is not vesical distension, but vesical contraction; the former, which may be readily prevented, does mischief indirectly by inducing the latter. What other sources have we of vesical contraction? The urine itself may be an irritant from abnormal composition, or even independently of that. Correct any derangement in its composition; and at any rate give diluents freely so that its specific gravity may be lowered, and it may resemble more nearly warm water, which is one of the most soothing applications that can be made to a painful part. Then we may have small fragments of blood-clots and phosphatic deposits, which will excite vesical contractions. Now these can be better removed when the urine comes with a gush at intervals of a very few hours, than when it constantly dribbles through a retained catheter. Finally, the catheter itself is in very many cases a source of irritation to the bladder—exciting violent contractions so as sometimes to displace it. I have known, too, the Sims catheter to turn (the urethra was large), dragged in part by the gum-elastic tubing attached to it, so that the convexity of the instrument was turned towards the posterior surface of the pubic bones; it is easy to see where its point was, and that that point might, in some situations of the fistule, be forced through.

As the conclusion from all this, let me say that in each case the surgeon must determine for himself as to whether the catheter should be retained or introduced at brief intervals.* No universal rule ought to be given. Where it is advisable to have this instrument retained, I much prefer the ordinary gum-elastic to any other.

It need scarcely be added in terminating this communication, which might readily be protracted to three or four times its present length, that my sole desire and effort in preparing it have been to arrive at truths, historical, scientific, or practical; and that while rejoicing in the comparatively recent achievements of our countrymen, and honoring the triumphs of Hayward, Mettauer, Sims, Bozeman, and Emmet, I would not deny to those distant in time or in place, the honor due their labors, or exalt any of the former by giving to them one jot of the merit, or praise of priority in discoveries, which may justly belong to the latter.

* While transcribing this for publication, a friend writes me of very serious hæmorrhage occurring in a case of vesico-vaginal fistule, upon which he was operating, immediately upon introdncing a suture with this kind of needle; the loss of blood was so great that the vagina had to be tamponed.

* Since writing this, a friend has handed me the eleventh volume of Guy's Hospital Reports, 1865, wherein Mr. Bryant, in discussing these operations, uses the following language, which, contrary to the rule given by most surgeons, confirms much that I have stated as to the use of the catheter: "The urine should be drawn off periodically after the operation, but it is not necessary to irritate the bladder by retaining the catheter in it." I ought also to add that Dr. Gross, in the third edition of his Surgery, uses the following language: "I have lately very advantageously dispensed with it (the retained catheter) in several cases, the urine being drawn off every six hours with an ordinary female catheter."

IS CHOLERA CONTAGIOUS?

BEING A PAPER READ BEFORE THE MEDICAL ASSOCIATION OF THE EASTERN DISTRICT OF BROOKLYN.

By J. J. ACHESON, M.D.,

OF BROOKLYN, N. Y.

The solution of the question, whether cholera is or is not contagious, is invested with peculiar interest at the present time. The public expect that the profession shall give a definite answer to this question; so that a necessity is imposed upon every physician to arrive, if possible, at such conclusion as will not only satisfy himself, but convince others of the reasonableness of the opinion entertained. In the investigation of this subject, I intend to confine myself to the abstract question enunciated, leaving out of the account any consequences which may be supposed naturally to flow from the adoption of a positive decision.

Cholera is said by some to be strictly epidemic, existing by force of a mysterious poison diffused through the atmosphere. It is assumed that this poison moves in the form of a volume, that its rate of progress is comparatively uniform, and its track not more eccentric than may be accounted for by the influence of prevailing winds. And, further, that when this choleraic atmosphere reaches any given place, all persons predisposed or susceptible to its operation become objects of attack by virtue of its own peculiar powers. It is denied that cholera is contagious, that is, that it is conveyed from one person to another by contact, or that it can be transmitted by clothing, furniture, or any appendage. The poison, it is affirmed, makes no use of vehicles; that it is never brought, but comes. This

is the creed of the non-contagionists. To support this theory, a great number of cases are recorded, where medical and other attendants, placed in the most likely positions to imbibe the poison, have yet escaped its infection. Now this seems to be a good conclusion, and to establish the truth of the non-contagious theory; but among the cases cited it is conceded that a few contracted the disease, and it is further acknowledged that these attendants were not so likely to fall victims to this destroyer as might at first sight be supposed. We quote from one of the last and most confident of the advocates of the non-contagionists: "We believe that physicians and nurses are, *cæteris paribus*, less liable to the disease than other classes of persons, because by constitution as well as habit, perhaps, they are less liable to that sort of anxiety and alarm; because in the midst of the disease their minds are actively and wholesomely employed; and because they are continually impressed with the importance of hygienic care, and necessarily inured to the practice of it." Now, if some, even though few, who were exposed to the influence of the disease did contract it, the question of its contagion, at least in degree, is acknowledged, especially when it is remembered that these attendants, upon the first premonitory symptoms, may be supposed to have recourse to such remedies as are known to be effectual in the incipient stage of cholera, and so have escaped the full development of the disease. In other words, it is conceded that some who came in contact with the sick, and who are supposed to be in the possession of those mental and physical conditions most likely to ward off the disease, were nevertheless forced to succumb to its power. Now such an admission must, we think, have the effect of weakening the foundation of the faith of the non-contagionists, and make them less confident of the truth of this modern theory.

The lofty and contemptuous tone which they assume against such as differ from them on this momentous subject should be based on a firmer foundation. The advocates of the epidemic theory set out with the absolute dogma that cholera is in no sense contagious, and yet they are forced to admit that it does sometimes attack those who are exposed to its malaria, and that, too, in subjects considered by themselves to be under the most favorable sanitary influences. But if it be said that they only affirm that the exemption from the disease in medical and other attendants is only general or partial, then they leave but little room for controversy. For those who maintain that cholera is contagious believe, also, that it is so under certain conditions, like small-pox and other infectious diseases. All are not subjects of cholera who come within its range. There must be, it is supposed, some peculiar liability or predisposition, an aptness of the constitution in the person, before he is susceptible to any disease. Many more individuals were exposed to the agency of this poison than were injuriously affected by it. But this exemption simply shows that the exciting cause, to be effective, demands a fit recipient, and that the susceptibility to the poison varied much in different persons. This view of the poison is held by such as believe that cholera is portable and communicable from persons to persons, as well as by those who affirm that cholera is epidemic, and that it comes only in the atmosphere.

If this exemption will seem to invalidate the doctrine of contagion, it is equally fatal to the atmospheric theory; for in both it is conceded that to create cholera or any other pestilence, not only must the miasm or virus be present, but there must be a body obnoxious to its influence.

And here I may mention another point on which both the contagionists and non-contagionists, in the main, accord. Both believe that cholera and kindred diseases may, to a great extent, be prevented by general and combined sanitary arrangements, and that, where proper measures of prevention and alleviation have been enforced, the immunity from disease has been in proportion to the degree to which such measures have been systematically and promptly carried into effect. But another, and it is supposed an unanswerable, objection to the doctrine of contagion is that great numbers have been attacked simultaneously who had previously no intercourse with the sick, and that there is no way of accounting for such a state of things without supposing cholera to be epidemic. This assumption, constantly brought forward, is proposed as strong and conclusive evidence against the proof of the contagion of cholera and other diseases, and any who may have the effrontery to doubt the conclusion are held up to public scorn. Now, notwithstanding such confidence on the part of the advocates of the atmospheric or epidemic theory, we make bold to question the grounds upon which their structure rests. The circumstance of cholera having occasionally attacked one or more persons in several places, without the possibility of discovering any communication with the infected, is what is termed in law but a negative kind of evidence at best. There may have been some communication which has escaped notice. We need only to remark how difficult it must be to prohibit all intercourse between different countries at the present time, and much more between different districts of the same country. If the tariff is high, there is the more likelihood of smuggling. If travel between places were prohibited, it would most probably give rise to much sanitary contraband.

But, further, the non-contagionists offer, as a necessary conclusion, that there can be no other way of accounting for the presence of cholera, except by supposing the disease to be epidemic. Now I cannot see that we are compelled to such a conclusion, especially when the same writer acknowledges that, "whether the influences which produce this poison are telluric, electro-magnetic, or animalcular, we know no better than we did fifty years ago." Here is a confession that either as to the primary or proximate causes of cholera little has been ascertained; and this is the testimony of all writers on the subject. After that, a confession of complete ignorance of the special nature of the poison on the part of the non-contagionist, a little more modesty and a little less abuse of those who propose another solution to this vexed question might be considerate.

These observations are designed simply to clear the ground in this controversy, and to show that the epidemic theory, resting as it does upon negative evidence alone, is not so impregnable as its advocates would force us to believe. It remains, then, that we produce some positive evidence that cholera can and does sometimes spread by contagion. Such testimony must, we think, outweigh any amount of mere negative proof, however imposing. We will cite some well authenticated cases that cholera partakes of that morbific action or process which pathologists call contagion, and that this specific poison is transmitted from the sick to the healthy by direct contact, or through the medium of clothes impregnated with the effluvia, generated in the bodies of those affected; and that this effluvium is capable of exciting the same disease in such predisposed individuals as are exposed to its action by direct or indirect intercourse.

The cases are taken from the forty-ninth volume of the *Edinburgh Medical and Surgical Journal*, as contributed by Dr. James Simpson.

In the village of Bathgate, which contains a population of nearly 3000 inhabitants, and is situated in West-Lothian, eighteen miles from Edinburgh, on the road between that city and Glasgow, six cases of cholera occurred during the prevalence of the disease in Scotland.

A middle-aged female stranger was allowed, secretly and contrary to the orders of the Local Board of Health, to enter one of the lodging-houses within the outskirts of the village, on the evening of the 20th of April, 1832. This woman had been for some time a resident in Glasgow, but she had gone two days previously to Edinburgh, where the cholera was then prevailing. She lodged at Edinburgh two nights, and then set out for Glasgow on the morning of that day on which she reached Bathgate. By the time she arrived at Bathgate she felt unwell. During the night well marked symptoms of cholera manifested themselves. She died on the night of the 22d of April. Next day the village nurse, who washed the clothes of the deceased, was seized with all the most marked symptoms of cholera, and passed through a very severe attack of the disease. No other cases of cholera were seen in this village till the 27th of April, when the second importation of the disease took place in the persons of three female mendicants, who had two days previously left Edinburgh, where the disease was then still prevailing. They lodged at Broxburn on the night of the 26th. Next morning two of them presented symptoms of cholera, and the authorities forwarded them all to Bathgate, a distance of seven miles. By the time they reached Bathgate they were both in a state of collapse. The elder sank in thirty hours after her arrival, and the younger one survived about twenty-four hours longer. Three female nurses, all residents in Bathgate, attended these cases. One of these nurses was attacked with cholera on the morning of the 30th, the day on which the younger stranger died, and she sank under the disease in the course of about eighteen hours. On the same day, also, the third remaining stranger, a girl of twenty, became affected with the disease, and died on the fourth day afterwards. Two of the nurses and one of the surgeons (Dr. Dixon) were affected with tormina and diarrhœa only. All the other inhabitants escaped the disease, as they carefully avoided all intercourse with the infected persons and houses. All the district and villages more immediately around Bathgate totally escaped any attack of cholera. The nearest point at which the disease is known to have occurred was at Linlithgow, which lies about seven miles to the north, where one or two suspicious but not decided cases were observed.

From the same we give another case, that of the village of Dollar, which contained a population of 1500. Out of this number only one was attacked with the cholera, and this person was taken ill after having slept with an individual who was then laboring under the disease. The following are the principal circumstances: On Saturday, the 12th of May, 1832, Campbell, a young woman who was residing at the Devon Iron Works, where the cholera had been raging extensively for several weeks, found herself extremely unwell and suffering under the earlier symptoms of the prevailing disease. Afraid of being sent to the Cholera Hospital, she set out on the evening of that day for Dollar, a distance of four miles, and took up her abode there with her mother, who lived by herself in a cottage in the village. Early on the following morning (Sunday), some of the members of the Local Board of Health heard of her arrival and requested a medical man to visit her. She was found by this gentleman to be in the collapse stage of cholera. As soon as this became known in the village a tumult ensued, and it was determined to send back the young woman in a vehicle to the Devon Iron Works Hospital, where she died that night. At the same time her mother was placed in quarantine in a comfortable and commodious house, a quarter of a mile out of Dollar, which had been previously prepared for a temporary hospital for the reception of any cases that might occur among the residents of the parish. After the removal of the inmates of the cottage, it was set on fire, and it, with everything it contained, was consumed early on the Sunday forenoon. On the morning of the next day, Monday, the 14th, Dr. Walker, on visiting the hospital, found the old woman, Campbell, in apparently perfect health. During, however, the course of the same evening, she suddenly became very ill, and after some abundant rice-water evacuations speedily fell into a state of complete collapse, with violent spasms and excruciating pains in the extremities, and other well marked symptoms of malignant cholera. She expired on the following morning; Tuesday, 15th, after an illness of fourteen or fifteen hours. The surgeons of the village had been obliged to conduct the vehicle in which the daughter was driven back to the Devon Iron Works; and so great, Dr. Walker observes, was the terror of the villagers on the old woman's death, that no one would assist at her interment. The undertaker left her coffin on the turnpike road near the hospital, and the medical gentlemen had to put the body into it and screw it down, and drive the cart which carried the corpse to the grave. The horse even was obliged to be procured from a stranger at an exorbitant price; and (as if there were danger of the very *dead* becoming infected) the victim of cholera was buried outside the village churchyard. No other cases occurred in this place, a very singular fact, as the doctor remarks, seeing that the inhabitants of Dollar must have been eminently susceptible of any general morbific influence on account of the fear of the malady that they manifested, and which is universally regarded as one of the strongest predisposing causes to it.

Dr. Simpson records a great many similar cases as illustrative of the direct importation and propagation of cholera to towns and small communities. He gives also a series of cases of importation of the contagion from an infected to a healthy part of the same city; and in addition he gives several cases of the importation of cholera by infected ships. And these cases, he says, might easily, if it had been necessary, been greatly multiplied by reference to numerous recorded instances of a similar kind. The cases, however, of Bathgate and Dollar alone afford us sufficient data to draw the conclusion that cholera *can* spread by contagion. And if these and like cases do not prove absolutely the contagious nature of cholera, they do at least enable us to arrive at such a high degree of probability of its truth as will, I think, satisfy the unprejudiced mind. The evidence may not warrant us in asserting that the disease spreads in all cases in this manner; but if we once admit, as I believe these cases prove, that the evidence of contagion is complete in some instances, any evidence that may be adduced of its not spreading by contagion in other instances can be considered in relation to the former admission as only of a negative kind. These cases contain every characteristic embraced in the term contagion as previously defined and as popularly understood. What degree of conviction they may produce in others I cannot tell, but to my mind the conclusion is irresistible that cholera is contagious. I am aware of the array of plausible evidence on the other side of the question. A favorable way of putting

it is one of a late writer, who says that he has been exposed to the influence of cholera in every form, and he has conversed with great numbers of distinguished medical men similarly exposed, all of whom were living witnesses of its non-contagious character. Such statements we are not inclined to call in question. For it is acknowledged that the poison of cholera acts but feebly in certain conditions of the human person and in certain localities; and by the same mode of reasoning one may conclude that bullets do not pierce the human body, for thousands of our veterans have returned from the late war unscathed through showers of them, in hundreds of battles.

If, now, we have arrived at the conclusion that cholera is contagious, I do not think that we are to be deterred from using every available means to exclude this plague, because it may produce in some weak minds a panic. The non-contagionists would persuade us that fear is the great exciting cause of the disease. Now fear, however much to be deplored, never yet produced a single case of cholera or any similar pestilence. And notwithstanding the losses and inconveniences predicted as the inevitable result of the prevalence of the doctrine of contagion, yet I hold that, if it be the true theory, it is better to adopt measures in accordance with such a state of things than to throw down all the barriers of protection and solace ourselves, as a non-contagionist would have us, by considering "cholera a main branch of the universal sanitary commission of the Almighty," which cannot be debarred, do what we may. The most of the epidemic theorists seem to entertain a great dread lest the people should be alarmed. Now I have no such apprehension, but believe that the people will be better to have the truth on this as on every subject that interests them, and that they are not at all likely to be panic-stricken when they fully comprehend the matter. But instead of giving way to insane fear, they will see that every conservator of the public welfare be required to enforce such sanitary regulations as are known to alleviate, if not entirely prevent, this pestilence. And now that we know that cholera is curable in the majority of cases, and that the mortality is reduced to the minimum by good nursing and appropriate remedies, we do not apprehend that the fact of its contagious character will produce any unmanly fears to the neglect of the sick among a humane and Christian community. Yes; let the truth be disseminated, and then all will cheerfully acquiesce in carrying out such measures as are deemed proper to stay the pest in its dire career, and to originate such wise precautions against its entrance as have been found efficacious, at least in some good degree, as against small-pox, typhus fever, and kindred diseases.

Consumption of Alcohol in France.—The consumption of spirituous liquors in France is making rapid progress. In 1788, the amount of alcohol sold did not exceed 200,000 hectolitres during the course of the year. In 1840, 1,000,000, and in 1863, 3,000,000 hectolitres were consumed. In 1840, eight litres of brandy were drunk per inhabitant within the barriers of this city; thirty litres are now the average consumption per head. According to Dr. Jolly, 300,000 Parisians daily indulge in their *petit verre*. A hectolitre represents twenty-two gallons, and a litre about an English pint and three-quarters.

The International Ophthalmological Congress, which was to have been held in Vienna during August last, has been indefinitely postponed in consequence of the unsettled condition of the country.

Original Lectures.

ON AMPUTATIONS.

By FRANK H. HAMILTON, M.D.,

Professor of Military Surgery, Fractures, Dislocations, and Principles of Surgery in the Bellevue Hospital Medical College, etc., etc.

Lecture I.

I remark first, gentlemen, that merely to make an amputation, demands the smallest possible amount of mechanical skill; but that to decide upon and to make an amputation *well*, demands the largest amount of both judgment and surgical skill. I say this in controversion of two popular errors that prevail, both in the profession and out of it; the one, an error of the people, viz. that if a man has made an amputation he is a great surgeon, especially if he has amputated the thigh; the other, an error of certain men in the profession, viz. that amputations are very simple operations, and that any surgeon is fully competent to perform them. In the discussion which occurred in the Academy a few months ago, relative to amputations in connexion with the subject of anæsthetics, a distinguished member of the Academy, Dr. Krackowizer, remarked that he had an impression that one reason why amputations did not do as well to-day as they did twenty-five years ago, was that since the introduction of anæsthetics every man felt assured to make an amputation; if he did not feel himself more competent than before, he felt at least less apprehension; and the result was that amputations did not, as formerly, remain entirely in the hands of experts; everybody was making amputations, and that this accounted for the frequency of bad results. I am prepared to admit that there is a degree of truth in this. Certain am I, gentlemen, that there is no department of surgery which demands of the surgeon so much judgment as the decision upon the propriety of amputation, and there is no department of surgery which demands of him more mechanical and surgical skill than the proper making of an amputation; and upon those two circumstances depend, in a great proportion of cases, the results. Let us consider this subject in detail:

I. What condition of limb demands an amputation? Commencing with the simplest form of accident to which a limb is liable—we say that a simple laceration of the soft parts does not demand amputation. A simple fracture of the shaft of a long bone (observe that I speak of the *shafts* of the bones now), with moderate lesion of the soft parts, does not of necessity demand amputation. A simple fracture of the shaft of a long bone, coupled with the lesion of an important artery, the main trunk of supply of the limb, does not of necessity demand amputation. If any exceptions to this occur it will be perhaps in the case of the femur, where the femoral artery is injured; but even this does not ordinarily demand amputation. A simple fracture of the shaft of a long bone, accompanied with a lesion of the main nervous trunk of supply for the limb, does not of necessity demand amputation; and yet it will more often demand amputation than a similar lesion of the main arterial trunk of supply. A simple fracture of the shaft of a long bone, accompanied with lesion of both the main artery and main nerve of supply for the limb, demands amputation, we think, always. You may tie the artery and arrest the current of blood through the main trunk, and the limb will be supplied by the collateral vessels; but if the nerve be cut off, the chance of a restoration of the ner-

vous supply is small; and if both nerve and artery are injured, the limb, if it does not die, will certainly be useless.

A gunshot fracture (that is, generally, compound and comminuted) of the shaft of a long bone does not of itself necessarily demand amputation. A gunshot fracture, that is, a compound comminuted fracture of the shaft of a long bone, accompanied with extensive contusion of the soft parts, as when the accident has been produced by a solid cannon-shot, does demand amputation, always. A compound comminuted fracture of the shaft of a long bone, accompanied with lesion of the main artery, if it is the lower extremity, in the majority of cases demands amputation. If, for example, it is a compound comminuted fracture of the femur, with lesion of the main artery, it absolutely demands amputation. If it is a gunshot fracture, or a compound comminuted fracture of the tibia, with lesion of the anterior tibial artery, it does not of necessity demand amputation. So we have to qualify our statement with relation to this particular form of accident; and when we come to the upper extremity we have to say that a compound comminuted fracture, with lesion of the principal artery, does not of necessity demand amputation; sometimes it may; but so far as the mere condition of the limb is concerned, it does not of necessity demand amputation. In all parts of the body, either in the lower or upper extremities, a compound comminuted fracture of the shaft of a long bone, accompanied with lesion both to the artery and to the nerve, always demands amputation.

Next, of gunshot fractures of joints; for we have thus far spoken only of gunshot fractures of shafts. Commencing with the lower extremity, passing over the smaller bones, in relation to which we cannot lay down absolute laws, we say first, that a gunshot fracture of the tarsal bone, where the missile has fairly penetrated through the tarsal articulations, almost always demands amputation. I do not believe that resection furnishes a proper alternative. In saying this, I say that which is not entirely orthodox; but I shall speak of this more particularly when I come to treat of special amputations. Gunshot fractures penetrating the ankle-joint demand amputation. I reject resections here again, almost altogether. I have no reference now to any other complications, as to whether the artery or nerve is injured or not; but if it is a gunshot fracture, fairly penetrating the ankle-joint, I think it demands amputation. A gunshot fracture of the knee-joint demands amputation; and I remark that whatever may have been the opinions of surgeons up to the period of the present war, the experience of the present war has settled that point conclusively, and has shown us that resections furnish no alternative in fractures of the knee-joint; that the proper remedy is amputation: though we are not without the knowledge that a certain number of such cases recovered where no amputation has been made; but we also know that those persons incurred an extraordinary risk.

Gunshot fractures penetrating the hip-joint. In relation to these we have not yet established a law. A certain number of cases have been known to recover, with deformed limbs, in which no operation has been practised, where the ball has penetrated the neck of the thigh-bone; a certain number of cases have been known to recover in which resection has been practised; and a certain number have recovered in which amputation has been made; but the number of each of these several cases is too small to base any conclusive opinions upon.

Passing to the upper extremities, we remark, gunshot fractures of the wrist-joint, where the ball has fairly penetrated the joint, demand ordinarily—not always, but ordinarily—either resection or amputation. If it is a gunshot fracture, penetrating the joint, implicating the main arteries at the joint, I would advise amputation. If it is a gunshot fracture penetrating the elbow-joint, and implicating one or two of the principal nerves supplying the extremity, it is probable that amputation will give the best result. But, if it is a gunshot fracture without lesion of any important vessel or nerve, then resection is the proper remedy. Finally, gunshot fractures of the shoulder-joint ordinarily demand resection. Here, too, if it is a gunshot fracture of the shoulder-joint, in which the brachial artery is implicated, it demands amputation. If the missile has penetrated the axillary plexus of nerves it demands amputation; but if it is a simple gunshot fracture, penetrating the articulation of the shoulder joint, without lesion of the important blood-vessels or nerves, a resection is the proper alternative.

This is as far as we can proceed in our generalization of this subject. There is one condition, however, of which I omitted to speak, viz. the general condition of the patient, and his surroundings. I must state as a general law, gentlemen, that in proportion as a patient is enfeebled, from whatever cause, whether from scorbutic diathesis, from fatigue, from exposure, from imprisonment or confinement, or from impoverished diet—if the system is any way exhausted—the better are the chances afforded by amputations, as compared with attempts to save the limb.

Next, if the patient has to be carried a long distance, that furnishes an argument in favor of amputation, especially if the journey is to be over rough roads and in uncomfortable conveyances; so that as a rule, in active campaigning, fewer attempts have been made to save limbs in cases of fracture than would be made under other circumstances. One would hardly think, for example, of carrying men with fractured limbs from Atlanta to Savannah, while it might be very well to do so after amputation. So also in raids, where the troops move rapidly, and especially in cavalry raids, in cases of gunshot fractures, the patient has either to be left behind to the doubtful care of strangers, or amputation must be resorted to in order that he may be carried off. So the condition of the roads, the conveyances, and the distance to which the patient has to be conveyed, are all points to be considered in determining whether to make an amputation or not; and here are points in which the rules differ entirely from the rules which apply to civil practice.

II. Next, we will consider the period of time at which an amputation is to be made; and these periods are divided somewhat arbitrarily into immediate, primary, and intermediate and secondary; which arbitrary divisions have relation to certain supposed physical conditions of the patient during these periods. It is assumed that the conditions correspond, therefore, to certain divisions of time with some degree of accuracy. It being assumed that in a certain proportion of cases within the first six hours the patient is in a condition of shock, this is called the "immediate" period. It being assumed that after the lapse of six hours, and before forty-eight, reaction ensues, but not inflammation; this is called the "primary" period, or period of reaction. It having been observed that after the lapse of forty-eight hours, and before the interposition of suppuration, which is usually completed by the seventh day, there is inflammatory action or a congestion of the limb; this is called the period of inflammation or of congestion, or the "intermediate" period, as being intermediate between the primary and secondary. And it being assumed that suppuration takes place, or is pretty well

developed by the seventh day, the period extending from this time on is called the "secondary" period. This latter period is indefinite as to its extent, and is also called the period of suppuration. You will see at once that these divisions are arbitrary, both as to the points of time and the condition of the patient; but they are of a certain degree of advantage in enabling us to classify cases. But for some such arrangement we never should derive any benefit from observations; and one of the great reasons why we do not derive more information from reported examples from field and hospital practice is, that this classification is not always observed, and where it has been attempted it has not always been understood. Thus, some surgeons have called that an immediate operation which was made at the end of twenty-four hours, because it was not a secondary one; imagining they were only to contrast operations made before suppuration with operations made after that occurred; so that a large number of the cases reported in the journals as immediate amputations, we find, on examination, to have been made twenty-four hours after the injury.

In speaking of the relative merits of these different periods for operating, we remark first, that the intermediate period is rejected at once by common consent; the intermediate is the period of inflammation of some writers, and indeed you may say in civil practice that it is ordinarily the period of inflammation. After the expiration of forty-eight hours or thereabouts occurs inflammation; and now if you make an amputation before suppuration ensues the patient is likely to die. But, in military practice, this is a period of congestion, in a great majority of cases, and not a period of pure inflammation. At the end of forty-eight hours, or on the third day in the case of a man with a fractured thigh, the limb instead of being red, tense, shining, and tender, and the pulse instead of being bounding and full —instead of these conditions, you find the limb swollen, but white or yellowish and puffy, and not tender; the pulse feeble; no color or very little in the cheeks. This is the period at which reaction has occurred as far as it is going to occur, but no inflammation having supervened, it becomes a period of congestion; and while writers have always admitted that the intermediate period, so called, is not the period for amputation, we know positively from army experience, that this condition of congestion is still more fatal for amputation than the condition or inflammation; and that we scarcely ever save a patient operated upon on the third or fourth day. So we may dismiss the intermediate period at once.

We are prepared to dismiss also the secondary period, from the concurrent testimony of army surgeons that secondary are more fatal than primary or immediate operations. If you would look for arguments in favor of secondary amputation, in military practice, you must look behind the present century. No surgeons now advise it. In civil practice it has been claimed that secondary operations are more successful than primary; but the arguments of Dr. Lidell show pretty conclusively that the comparison has not been fairly made. Those who make the comparison are in the habit of including in the secondary operations all classes of operations made for diseases of limbs; but it is notorious that you may amputate for fungous hæmatodes, and the wound will heal and the patient will seem to be cured. The fact is, if you make an amputation for a malignant disease, cicatrization occurs with more readiness than it would do in a healthy limb, the fibrinous deposit occurring with immense rapidity; and those cases are reported cured after secondary operation. So if you include as secondary operations those made for a caries of the joints, you will have a large average of success; for it has long been observed that if the disease is of a chronic character of this kind, and not the result of injury — not traumatic—amputations are likely to prove successful. But if you were to select from civil hospitals only those cases of severe traumatic lesions presenting a fair correspondence with the class of cases which we meet with in military surgery; if, for example, you select only cases in which men have had an arm or leg crushed by machinery or run over by a car, and then determine by the records whether the primary or secondary amputations do best, I have no doubt you would find the primary the most successful. There is still another circumstance in which civil practice differs widely from military practice; you have no children to deal with in the latter. In civil hospitals I think I may say a majority of the cases of amputation are examples in which children have been injured. But it is notorious that in proportion to the youth of the person is the prospect of recovery; so that when you come to take all these points into consideration, you will remark that there is no fairness in the comparison. I believe that if you select similar cases from civil hospitals and from military hospitals, you will find the primary operations having the same relative success over the secondary as in military practice.

The question is reduced to this. Which is the safest period for operating, immediate or primary? Shall the operation be made while the patient is in a condition of shock, or when reaction ensues? I have, gentlemen, made this arbitrary division of time, and said that an immediate operation is one made within six hours, and a primary operation one made after six and within forty-eight hours. Yet strictly, I do not speak of an immediate operation in any other sense than as a condition of shock; I do not mean by immediate anything but a condition of the system. The actual question is—Shall we operate during the shock? I say no! yet there is no point of time at which an operation may be so safely made as immediately, *provided there is no shock.* In such a case I do not wait for the primary period; for strictly speaking it is already present—that is, the condition of the system which belongs to the primary period. In other words, when I speak of preferring the primary period to the secondary, I mean simply that I prefer that condition which I cover with the word "primary" to that condition which I cover with the word "immediate"—that is all. Now, as to how many cases there are in which shock exists, and in what precise degree it exists, I am not prepared to say; no one has taken the pains to ascertain the proportion, or given us any statistics on the subject; some think one way, and some another. But no matter, since the question is simply—Will you operate when the patient is in a certain condition? Will you operate at once when there is a fair chance that reaction will take place; or, will you wait till reaction ensues? Now, there are a few who would recommend immediate amputations under the circumstances supposed; and to that class belonged the late Dr. George McClellan, of Philadelphia, father of General George B. McClellan, and one of the most distinguished surgeons of his day, but of whom, I must say, he possessed certain eccentricities of opinion; and he was the only surgeon known to me personally, thirty years ago, who considered it best to make amputations in the condition of shock. There were then no anæsthetics; and his argument was simply that the patient was in a great degree insensible to pain from the shock, and that while he remained in that condition you could inflict but little if any injury by an operation. To which I reply that the patient is not usually, in this condition, entirely insensible to pain; and as section of tissues is well known to cause shock, it is probable that it would require now only

the slightest additional amount of lesion to destroy life. In my experience this has happened more than once. If it is affirmed that anæsthetics obviate all danger of increasing the shock, I am prepared to contest the point. I deny that obliterating pain diminishes shock. I deny in the first place, that there is any evidence that shock is caused by pain; but as evidence to the contrary, I present these facts: first, that the receipt of the injury which produces shock is rarely accompanied with much pain; you do not learn that the patient who was struck by a cannon-ball suffered pain at the moment of the receipt of the injury. On the contrary, he tells you that he felt benumbed; nor will you learn generally that he suffered pain afterwards at any period prior to the occurrence of shock. If you will trace carefully the early history of those cases, you will find no evidence in the majority of examples that the prostration was due to pain. In the report made by the Surgeon-General, in Circular No. 6, you will find twenty-one amputations at the hip-joint, and thirty-two resections at the hip-joint. In all the cases of amputations we have reason to believe anæsthetics were employed. I know chloroform was used in a large proportion of the cases, and I suppose it is proper to assume that anæsthetics were used in all, and so also with the resections. The patients were insensible to pain.

Of the amputations, of seventeen cases in which we have been able to ascertain the period of death, two died on the table, probably within twenty minutes; four died within one hour; six died within six hours, and eleven within twenty-four hours. All but one died within nine days, and only one survived nineteen days. The average duration of life was about three days.

Of the resections, of twenty-two cases known to have died, and in which the period of death has been made out, in no case does it appear that death occurred in less than twenty-four hours, three died at twenty-four hours, four survived twelve days, and one lived to the thirty-eighth day. The average duration of life was about eight days.

Now if all these patients were insensible at the time of the operation, and if the annihilation of sensibility obviates shock from operations, why did the cases of amputation die so much more quickly than the cases of resection? It is never stated that much blood was lost in either class of cases; on the contrary, it is, when alluded to at all, said that the bleeding was small. In what respect did these cases mainly differ. Plainly in the amount of tissue cut, or in other words, in the extent of the incisions: and these broad incisions caused death, even in spite of the anæsthetic. Some of the surgeons have even reported them as dying of *shock*.

Again and again I have known gentlemen say that such a patient after taking an anæsthetic, died on the table of the shock of the operation. How was that, if destroying the sensibility prevents shock?

Now, gentlemen, it has been understood time out of mind, that pain is a stimulant. This is my final argument, namely, that pain is a stimulant. If in giving an anæsthetic, a patient seems threatened with fatal prostration, and about to die, the operator says "cut again," and you will revive the patient, if he has any sensibility remaining. That has been thoroughly understood, and no one has denied that within certain limitations (and I hardly know where the limitations are) pain is a stimulant. That is not sound doctrine, therefore, which affirms that obliterating pain lessens the danger of shock; nor is it, in my opinion, sustained by facts.

Gentlemen, I am now prepared to affirm that the period of reaction, or the primary period, is the best point of time for amputation, and that the immediate, or period of shock, is not the best; but that, on the contrary, it is an eminently dangerous period; and yet I would make an amputation then if the patient were bleeding to death, and I could not tie the arteries, or if there were spicula of bone projecting into the nerves and producing spasms; or if the limb were nearly severed by a cannon-ball. If a finger, or an arm, or even the thigh were injured, and there was no prostration, I would not hesitate to make amputation as quickly as possible; and I say, moreover, that if army surgeons cannot be made to understand the value of primary amputations as compared with intermediate or secondary, then I say to all army surgeons, cut off every limb requiring amputation as soon as you see it. Of the two evils, that is much the least; to make immediate rather than intermediate operations. If they cannot be made to understand that the patient must not pass the period of reaction; or if the patient is to be taken away, no one knows where, and there is danger that a surgeon may not see him in time, or that the precious moment will be lost; or if the surgeon himself were obliged to be absent two or three days, and the question was between doing the operation immediately, and deferring it two or three days, let him do it immediately; it is far better than to wait.

The next subject for consideration will be at what point the amputation should be made, and the manner of making it. These matters I will defer to my next lecture.

Progress of Medical Science.

Chloride of Copper as a *preventive of cholera*, and as a *general disinfectant*.—Dr. Th. Clemens, of Frankfurt, a. M., has communicated, during the past twelve months, several articles to the columns of the *Deutsche Klinik*, on the use of a spirit of chloride of copper as a disinfectant and as a prophylactic in cholera epidemics. He asserts that it is an established fact, supported by experience, that workers in copper-mines and in copper fabrics remain protected against the cholera poison. He claims that this substance has a peculiar effect upon the abdominal ganglionic system. In chronic diarrhœa, in irregularities of alvine evacuations, in lead colic, in hypochondria, and the cardialgic paroxysms of hysterical girls, he has used it with the result of curing them often, in a short time. He gives from three to six drops. every morning, in a mouthful of light wine. In the summer-complaint of children, in addition, he rubs it over the belly. He has also employed it in typhus. He has also employed the vapor of chloride of copper. He also uses it as a lotion in suppurating wounds. It is made by dissolving two drachms of chloride of copper in two pounds ordinary spirits, and then adding to the solution half an ounce of chloroform. To produce the vapor, this is burned in an ordinary spirit-lamp. If there is no lamp at hand, roll some cotton-wool on a plate, moisten it with a drachm of the spirit, and set fire to it.

In large hospitals, it can be placed in the halls and allowed to burn all day long. As a lotion, two drachms of the chloride of copper to two pounds distilled water. Moisten charpie with this and lay it over the wounds. When the spirit is used externally, it must be rubbed in well so as to create a feeling of warmth, and produce a tonicity of the nervous system of the skin.

Dr. Clemens claims this material to be the strongest, quickest, and most continuous disinfecting medium known.

A good way to disinfect a room is to put out a coal fire by throwing chloride of copper-water over it.

He has used it successfully as an ordinary disinfectant in crowded hospitals, and also effectually in epidemics of measles and scarlet fever. He has used the vapor successfully by inhalation in one case of gangrene of the lungs, and in two cases of pulmonary tuberculosis. Dr. Clemens's mode of employing this agent in treating cholera, and as a preventive, etc., is: first, to change the air several times a day by the vapor of chloride of copper; second, twice a day, morning and afternoon, to administer two or three drops of the spirits of chloride of copper in a tablespoonful of light wine; and third, to rub the whole abdomen, morning and evening, with the undiluted spirit, thus working through lungs, skin, and stomach.

M. Ollier (of Lyons) and the Regeneration of Bone.—This eminent surgeon occupied the attention of the Surgical Society of Paris recently with two communications—one relating to the removal of polypi occupying the nasal fossæ and pharynx; the other describing excision of joints, with preservation of ligaments, tendons, etc. The operation advocated for polypi is nothing less than bringing down the nose from above like the lid of a box, and thus getting easy access to the fossæ and base of the skull. The nose, when raised again towards the forehead, unites in a satisfactory manner. In his excisions, M. Ollier preserves all the fibrous tissues, the ligaments, the capsule, and the tendinous insertions; none but the osseous or cartilaginous textures are removed, and he thus obtains an articulation of the same type as the joint which has been taken away. One can easily understand such an operation upon the healthy articulation of an animal; but the pathological changes in joint diseases are sometimes of such a nature that the author's operation would, at first sight, appear extremely difficult, if not impossible.—*Lancet.*

Cure of Aphonia by the Simple Introduction of the Larynx Mirror.—At the clinic of Professor Oppolzer there was for several months a girl aged 20, with pulmonary tuberculosis and perforating gastric ulcer. Towards the end of May she became suddenly hoarse, and in four days had aphonia. "I expected in the advanced stage of the tuberculosis to find an ulcer in the larnyx. The laryngoscopic examination showed, however, only a very pale larynx, in the highest degree anæmic; but nowhere an ulcer. The vocal cords were of a pure white color; but on the attempt to say, 'ae' they gaped to the extent of 1 to 11 lines. I caused her to make this sound loudly for some minutes, when the laryngeal mucous membrane regained somewhat its color, and the vocal cords closed. When I removed the laryngeal mirror, the voice returned, to the great astonishment of the physicians present, and to the still greater joy of the patient. A short time since I had a similar experience in a case of diphtheritic paralysis of the vocal cords."—*Dr. Joh. Schnitzler*, in the *Wiener Medizinische Presse*, June 10, 1866.

Aphonia Albuminurica.—"Œdema glottidis" is better called "Œdema laryngis." This is seen as a collateral œdema, most frequently with ulceration of the larynx, also of the trachea and pharynx, as also in peronchondritis laryngis and other severe imflammatory affections in the vicinity of the vocal cords; it appears both in an acute and chronic form. But without the existence of any local process, an œdema of the larynx may be developed, which indicates a severe constitutional affection. In this respect attention should be especially directed to a form of aphonia, to which *Fauvel* (of Paris) gives the name, *Aphonia Albuminurica*, and whose diagnostic recognition is very important. This depends upon an œdema glottidis, which appears in the incipient stages of Bright's disease. The laryngoscopic examination, besides the œdema (tense swelling of the mucous membrane, with a pale, smooth surface), shows no local morbid process. From this we are led to look for a constitutional cause, and on examination of the urine, albumen is found.—*Berliner Allgemeine Medizinische Zeitung*, June 18, 1866.

"What is Helioprothesis?"—This strange term has been applied by M. Blanchet to an operation which he has devised for the restoration of sight to the blind where the sensitiveness of the retina has not been completely destroyed. So far as we can gather from M. Blanchet's account in the Reports of the French Academy (tome lxii., No. 25), the operation consists in puncturing the eye in the direction of the antero-posterior axis with a narrow bistoury, and introducing a piece of apparatus to which M. Blanchet gives the name of "*phosphore.*" The operation in most instances produces little pain, and when the globe of the eye has undergone degeneration there is no pain at all, and the "phosphore" apparatus is introduced without difficulty. The description of this contrivance is this: "It consists of a shell of enamel, and of a tube closed at both its ends by glasses, whose form varies according to circumstances." M. Blanchet thus describes the operation: "The patient's head being supported by an assistant, the upper eyelid is raised by an elevator, and the lower one is depressed. The operator then punctures the eye with a narrow bistoury, adapting the width of his incision to the diameter of the 'phosphore' tube which he intends to insert. The translucent humor having escaped, the 'phosphore' apparatus is applied, and almost immediately, or after a short time, the patient is partially restored to sight!" Before introducing the apparatus it is necessary to calculate the antero-posterior diameter of the eye, and if the lens has cataract it must be removed. Inasmuch as the range of vision depends on the quantity of the humor left behind, M. Blanchet recommends the employment of spectacles of various kinds. This singular operation of M. Blanchet's consists briefly in the introduction of an artificial eye, which subserves the functions of the various refrangent humors, and throws a perfect optical picture upon the retina.—*Lancet.*

Termination of Motor Nerves in the Muscles.—The views of Dr. Beale relative to the mode of termination of the nerves in the muscular tissue have been pretty generally accepted in this country. Most British microscopists hold with the King's College Professor in believing that the nerves have no decided termination in the muscles, but that their ultimate fibres unite in forming a network of extreme delicacy. Abroad, however, this view has met with some opposition, and especially from MM. Kühne and Rouget, the latter of whom has just presented a memoir to the Academy of Sciences upon the above subject. M. Rouget states that the nerve-fibre ends in a sort of terminal *plate* or disc; and in answer to Dr. Beale's denial of such a mode of termination he writes: "I shall only reply that all other observers who have devoted themselves to this subject, MM. Krause, Kühne, Waldeyer, Engelmann, and Letzerich, and still more recently, MM. Conheim and Vulpian, have all admitted the existence of the terminal plate, and its entire independence of any nervous network." M. Rouget laid before the members of the Academy some photographs of microscopic preparations of tissue, which he said demonstrated the following conclusions: (1) The terminal division of the *axis cylinder* of the motor nerve-fibre constitutes by anastomosis and fusion a terminal

expansion of finely granular substance identical with that of the terminal filaments of the corpuscles of Pacini, of the ultimate nervous lamina of electric plates of fishes, etc., and in immediate contact with the contractile substance of the primitive bundle. (2) This nervous expansion is traversed in every direction by minute canals, establishing a connexion between the numerous nuclei of the *plate*, and communicating probably, on the one hand, with the space intermediate between the sarcolemma and the contractile fibrillæ, and, on the other hand, with the interstice between the matrix of the nervous tube and the medullary layer—an arrangement which is doubtless related to the special action of certain poisonous substances upon the terminal extremity of the motor nerves of animal life.—*Lancet.*

Discovery of a Quinine-like Substance in the Animal Body.—Dr. Bence Jones has by a series of experiments made out the existence in the different animal tissues of a substance that is identical with quinine. This discovery was rather accidental. He started in his investigations with the desire to detect the presence of quinine in the animal body. For this purpose the test that he adopted was "that peculiar influence (fluorescence) of this alkaloid on the refraction of light, whereby it makes the dark part of the spectrum beyond the violet rays luminous." He administered quinine to a guinea-pig, and was able to detect its presence by means of the test "in the blood crystalline lens and other parts." But he found that every part of the "non-quinized" animal—heart, liver, kidney, and lens—when treated like bark in such a way as to dissolve out and purify any alkaloid that might be in them, gave the same spectral reactions as similar solutions did from the animal that had taken quinine." Continuing his investigations, he soon found that all the tissues of the body contained this quinine-like substance, and that its quantity was temporarily increased by administering the alkaloid. It was shown by this means that quinine, in a very few minutes after its administration, passes into every tissue of the body; that its maximum effect is produced in two or three hours, and then decreases till it disappears in about seventy-two hours. "The demonstration of its presence in the crystalline lens gave ground for hope that substances might be found hereafter to remedy perverted nutrition of the non-vascular tissues—as cataract, and even the deposits of gout in cartilages."—*Med. Times and Gazette.*

Precocious Menstruation.—Dr. T. Parvin (*Cincinnati Journal of Medicine*, Aug., 1866) refers to a case of premature menstruation in a girl 4¼ years old, which function had been carried on a year. He says: "The mother of this child is under medium size, very delicate; menstruated first at twenty years of age; married at twenty-four, and two years after marriage gave birth to this her only child. The general appearance of the child is that of a stout healthy girl of ten or twelve years; her weight is seventy-five pounds; her height three feet eleven inches; her voice is rather coarse and harsh, at any rate it has not the softness and gentleness of infancy; her physiognomy is that of early childhood; she is timid and 'babyish'—mentally and morally she presents none other than the characters which might be expected in one of her age. But her most marked physical characteristics, as will be conceived, are those of a sexual sort. The mons veneris, though destitute of hair, and the labia, are well developed, and the mammary glands are quite large and well formed; indeed in size they might answer very well for one of sixteen or eighteen years of age. The circumference of the chest, measuring over the mammary glands, is twenty-seven inches; a line encircling the lower part of the trunk, and fixed at either side at the middle of the crest of the ilium, measures thirty-one inches The menstruation recurs regularly, and continues three days; she does not seem to have any special suffering at these times; the amount of catamenial discharge is about equal to the average observed in the adult during the same length of time."

Diagnosis of Pregnancy.—M. Mattei, in a recent communication to the Imperial Academy of Medicine, stated his conviction that pregnancy may be accurately diagnosed during the first four months by combined deep-seated abdominal palpation and vaginal exploration. He asserts that in this way pregnancy may very often be pronounced upon positively at the end of the first month, almost always at the end of the second, and always during the third and fourth months, unless some exceptional circumstances, which are of exceedingly rare occurrence, are present. The principle upon which this statement is founded is that the uterus cannot be gravid without alteration in its size, and without presenting special anatomical and physiological modifications. Another important fact, which M. Mattei says he has demonstrated, is that the gravid uterus in four instances out of five is in a state of anteversion, and in once out of five or six times in retroversion, being rarely maintained in the straight line. Each of these positions has its special signs month by month, which have been studied by M. Mattei by aid of palpation and vaginal *toucher*. For example, in anteversion he has found that the uterine fundus is on a level with the pubes from the end of the first month, or even before that period. When the uterus remains straight or is retroverted, the diagnosis can only be made from the third month. M. Mattei gives rules for the production and perception of the uterine *ballottement*, which is to be distinguished from the fœtal.—*The Medical News and Library.*

Treatment of Urticaria.—M. Hardy prescribes alkaline baths, if the eruption is not very severe, then some baths of sublimate. He considers the last as the specific for itching. A topical application, which is equally excellent to relieve the itching, and which sometimes produces an immediate sedation, is the following powder: White oxide of zinc, ten parts; camphor, five parts; and starch, forty parts. He prescribes also in similar cases lotions made with one quart of vinegar and three of water; this solution is applied with a sponge. Instead of the vinegar and water we may use nitric acid and water, one or two grammes of acid to nine litres of water. The internal medication consists of orangeade, lemonade, barley-water, etc. Then comes the alimentary regimen, which is very important. He rigorously excludes all pork, fresh as well as salted; prohibits all shell-fish and certain vegetables, such as cabbage, which, like strawberries, may occasion urticaria and strophulus.—*Cincinnati Journal of Medicine.*

A New View of Dumb-bell Crystals.—Dr. D. W. Flora, of Chicago (*Cincinnati Lancet and Observer*), remarks upon the formation of the dumb-bell crystal, so often associated as a urinary deposit with oxaluria. He maintains that the dumb-bell crystal, of so-called oxalate of lime, far from being a primary form of crystallization, is really of tertiary origin. He claims that they are modifications of the globular-stellate crystals of urate of soda, which become after a time joined two and two by an isthmus. The primary form of these crystals is stellate; the secondary form gives us the globular crystal, and the tertiary the famous "dumb-bell."

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MORAL INSANITY.

THE fact that moral insanity has been made a defence in the trial of several notorious cases of homicide within the past year seems to have led to a protracted discussion of the subject by the "Association of Medical Superintendents of American Institutions for the Insane," at their late meeting in Washington. No more important or interesting topic could have been brought before the association, and we are glad to find the remarks upon it reported in full in the July number of the *American Journal of Insanity*.

Our medico-psychological brethren appear to be divided, on this question, into two parties, neither of which, perhaps, can claim a decided preponderance, in numbers or weight, of authority. Drs. Ray, Earle, Brown, Tyler, and Nichols, are leading names in support of the doctrines of moral insanity, and Drs. Kirkbride, McFarland, Gray, Chipley, and Cook, are prominent among those opposed. We cannot, of course, follow in a full discussion of the subject, but shall sketch briefly the opinions and arguments brought to bear upon it from either side.

The first point in dispute is in regard to definition. What is to be understood by the phrase "moral insanity?" If it may be defined as that form of insanity in which disorder is *chiefly* apparent in the moral powers or feelings, then all are agreed that the term is a convenient and proper one. But those who now maintain a moral insanity mean thereby a disease in which the moral faculties are chiefly or *alone* affected. What, then, has to be settled is, Do cases of insanity occur in which the morbid manifestations are limited to the sphere of the feelings, the intelligence remaining perfectly intact?

Those who hold the affirmative admit that, in the great majority of cases, both the intellectual and moral powers are obviously disordered. They do not deny that in nearly all instances of undisputed insanity some, even though slight, derangement of the intellect proper may be detected. But they assert that a few cases have been observed by themselves and others, in which no lesion of the intelligence was manifest, insanity declaring itself alone in the moral manifestations. Thus they say moral insanity, in the strict sense, must be recognised as an observed fact. To doubt it is to question the good faith or capacity, as scientific observers, of men whose character does not warrant such a reproach.

The objectors begin by declaring, in the first place, that they have never observed a case of insanity in which the intelligence was not more or less affected. In respect to cases cited, in their opinion some of them are not cases of insanity at all, but of vice or crime. Chiefly, however, without questioning the reality of the insanity, they take the cases described, and detect, as they believe, some evidence of delusion in their language or actions; or, they say, admitting that in one of a thousand, or even of five hundred cases of undoubted insanity no lesion of the intelligence is apparent during a given period, are we for this reason bound to maintain the doctrine of an exclusively moral insanity? In many cases where delusion was not at first or at all times manifest, it has finally or at long intervals appeared. And the practical objections to the doctrine must be considered. Purely moral disorder has always been deemed a subject for penal, not medical treatment. It belongs, by universal consent, to the provinces of law and religion. Now, by what criterion do you determine between cases of moral insanity and of moral depravity? None has ever been so much as attempted. But if there is nothing differential in moral insanity it cannot be rigidly scientific. We may, then, practically admit that the reasoning or knowing faculties, as peculiar to man, have a sort of primacy over the mind, which should lead us to refer to them for a final proof of insanity. Setting aside the extreme states of dementia and delirium, in which the dynamical condition is a sufficient mark of disease, delusion is the only safe and certain test. Where a person fixedly believes, against all evidence and probability, in that which exists only in his imagination, and is governed by this belief, he is then insane beyond doubt. But no kind or degree of moral obliquity can be conclusive evidence of insanity.

The advocates of moral insanity become indignant at this reference to the practical and logical difficulties in the way of their doctrine, and take the highest ground in reply. Science, they say, and especially positive science, is to be pursued without regard to the application of the truths which it discovers. Here, they declare, are certain facts, attested by the most competent observers, and upon these our conclusions inevitably follow. It is upon this assumption of positive demonstrable facts observed, and of a rigid scientific generalization, that they take their stand.

And it is just here, as it seems to us, they meet with a final overthrow. Their demand to have cases of

moral insanity accepted as scientific facts is easily shown to be unwarranted. Disorder of the moral powers is clearly not a "fact," in the meaning given to the term by those who make this claim. The only scientific facts are those revealed to the senses, and in a case of insanity they are the words and actions of the patient. When the observer goes further, and attaches a spiritual quality to these sensible manifestations, he passes beyond the sphere of positive science, and enters that of mental philosophy. What he now presents to us are not facts, but his own mental processes and their results. These, if he will, he may express by the phrase "moral insanity." But it is only his interpretation of facts, not the facts themselves, and cannot be admitted to have any scientific value.

But even in metaphysics this distinction between the moral and intellectual powers is superficial only, and falls before the first step in an analysis. It is of use merely for description, and affords no basis for an exclusively moral insanity. There is no doubt among philosophers that every mental manifestation is really made up of knowledge and feeling combined. We cannot perceive in ourselves any wholly separate action of these faculties, and it is only in abstract thought that we are able to divide between them. Thus, while moral insanity, in any sense, has no place in positive science, an exclusively moral insanity has not even a basis in mental philosophy.

It is not possible, then, to consider this doctrine as the offspring either of observation or of mental analysis. We believe the truth to be that it has been built wholly upon the assumptions of phrenology. According to this pseudo-philosophy, the brain is made up of separate organs, which are the instruments of distinct mental faculties. It follows, of course, that mental disorder may be confined to any one, or to a group of these. But this scheme never had any physiological proof, and has become thoroughly discredited as a theory of mind. Ought, then, a doctrine so entirely baseless, and so practically mischievous, as that of moral insanity, to be longer adhered to? Its approval by a considerable number of medical men in this country has brought them much obloquy, and, what is worse, has caused the plea of insanity in general to be looked upon with unjust suspicion. Such was the effect of the celebrated Mary Harris trial, at Washington, last year, and of many others.

We observe that an effort was made by the believers in moral insanity, at the meeting in Washington, to permanently interdict its discussion before the association. In our opinion the discussion ought rather to be pressed forward, until that body is prepared to declare itself upon the subject. It is one of the greatest practical importance in its relations to medicine, law, and morals, and certainly cannot but gain from close and repeated examinations.

Reviews.

1. Asiatic Cholera, etc. By R. Nelson, M.D. New York. 12mo. pp. 206.
2. Cholera, etc. By William B. Fletcher, M.D. Cincinnati. 8vo. pp. 57.
3. Nature, Prevention, and Cure of Cholera. By C. C Schieferdecker, M.D. New York. 8vo. pp. 40.
4. Cholera. By J. P. Gilbert, M.D. New York. 8vo pp. 21.
5. Tracts for the People. By Edwin M. Snow, M.D Providence, R. I. 8vo.
6. Is Cholera a Contagious Disease? Also a Letter to the Consulting Physicians of Boston. By Wm. Read, M.D., City Physician. Pp. 41—29.
7. Cholera, etc. By J. P. Batchelder, M.D. New York. 8vo. pp. 45.

The above are the titles of a few works on cholera which have recently appeared. It can hardly be expected that they should be noticed at any great length, nor is it necessary. Professional opinion in regard to the causes, pathology, modes of prevention, and even treatment of the disease, has been gradually becoming more and more settled and uniform, until we find there is scarcely any disposition to dispute in regard to points which formerly gave rise to much angry discussion and debate. The great discrepancy in doctrines and opinions which prevailed in regard to cholera in 1832, and even down to 1854, has happily disappeared, and we now find but little disposition to argue on questions which at those periods seemed never likely to be settled; and this unanimity has been brought about by careful observation of facts connected with the history and progress of the disease.

The work of Dr. Nelson is highly creditable to his zeal, intelligence, and well known experience. It is judicious, written in pure Anglo-Saxon, and abounds in useful information in regard to the disease. The writer has the good fortune to find that the views he entertained and advocated in 1832, as to the infectious nature of cholera, are abundantly sustained and confirmed by subsequent experience, and at present are scarcely disputed by any one.

Perhaps the most satisfactory portion of the work is that devoted to a consideration of the "Remote Cause," and it is justly remarked that "this is the most important point to become acquainted with; for with this knowledge the practitioner will know what precautions ought to be adopted against the disorder and its spread." The author then proceeds to give a very satisfactory account of the itinerary of cholera in India and elsewhere, showing that the malady spread from individual to individual; that it nowhere broke out until communication had taken place with the affected; that it never in a single instance preceded the arrival of affected persons or things; that it often broke out almost immediately, and rarely later than thirty-six hours after the arrival of the infected; that at least one-third of those violently attacked died; that in a limited population, as that of a small town or village, or a concentrated one, as on shipboard, it soon exhausted itself, and ceased to rage in two or three weeks, or less time; that when a large town was attacked, it would take from two to three months to select all the susceptible, and then cease.

It is needless to follow the author in his detailed history of the progress of the disease; we must, however, take exception to one of his positions, which is of such vital importance as not to be allowed to pass unnoticed. It is that "extreme cleanliness and hygiene made no difference as a preventive or a mitigative of the pesti-

lence." Dr. N. has here violated one of the most important rules in medical reasoning, namely, not to draw a general conclusion from a narrow induction of facts. It is the error into which most medical writers have fallen, even since the first appearance of cholera; they began to reason and draw inferences before they had made any observations. For example, they declared the disease *atmospheric*, and that it was propagated by some distempered mysterious state of the air, some unknown epidemic constitution, some hidden electrical condition; in short, they drew all manner of conclusions, instead of the very clear and obvious one, viz. that the disease was an infectious one, and obeyed nearly all the laws which govern this class of diseases. Dr. Nelson, in proof of his opinion that an impure atmosphere does not aggravate the disease or favor its spread, simply quotes the fact that cholera once gained a foothold in the harem of the Prince Royal of Persia, and carried off some of its inmates. But inasmuch as such establishments are generally kept in a cleanly condition, and under a very perfect system of hygiene, therefore dirt and impurity have no tendency to favor the fatality and spread of the disease! A *non sequitur* evidently, after the disease has become epidemic, and the atmosphere of a given locality loaded with the cholera poison. It then invades families residing in such places, although the utmost attention be paid to domestic cleanliness and personal purification. Such was the case in some parts of New York in 1832, when some of our most respectable citizens fell victims to the disease. Such has been the case in every place where, from favoring causes, the disease has assumed an epidemic form. Fortunately, the measures taken by the "Metropolitan Board of Health" in New York have, under Providence, prevented this calamity, and no one acquainted with the history of this disease will hesitate to give them full credit for this happy result. But if our author's conclusion be correct, sanitary measures, like some others, would be matters of supererogation entirely; and were it not for our olfactories and the looks of the thing, the streets of New York might rival those of Cairo or Constantinople, and no one be the worse for it. We have no desire to do the author injustice, but we dwell on this point inasmuch as it is one of vital importance.

After quoting the fact that 20,000 pilgrims perished in a few days at Mecca in May, 1831, "crowded together under every circumstance which could favor the propagation of the malady—exposed to a broiling temperature, wallowing in the *putrefying heaps of blood and offal* of victims sacrificed at the feast of Coram Bairam," in a note, the writer remarks that he "suffered this statement to be transcribed, as he did not wish to alter the language of the quotation, not that such putrefaction could engender or make cholera worse than if such filth did not exist." We leave this remark without comment, hoping that the author will reconsider his conclusions before another edition of his work be issued. Another strange conclusion of the writer is that "drunkards" are no more liable to the disease than temperate people, for we are told that in Montreal, where the disease proved very fatal in 1832, *all* the old drunkards reappeared after the pestilence ended.

Another conclusion of the writer is that "cholera is not a disease;" defining disease to be "a disturbance in and among the *molecules* constituent of any tissue of the living body." The author regards the "natural function of the molecular matter to be perturbated, but not destroyed, in disease, but that it is wholly so in cholera." No function whatever is performed, for "it annihilates completely all function." If this be so, how is it that patients live so long, hours or even days sometimes? If the function of oxygenation of the blood be suspended wholly, the patient dies instantly; so of circulation, innervation, etc. The functions are not wholly annihilated in cholera; even in the very worst cases death never invades instantly—so that, according to the definition given, *cholera is a disease*. A better definition, however, of "*disease*" would perhaps be as follows: "*Disease* consists in an aberration from the natural condition of the vital energies, endowing the whole or parts of the frame; or in alteration of the textures, which these energies actuate" (Copland). In cholera, as every one knows, the vital forces are depressed and prostrated; but after collapse is followed by reaction, then they exhibit greater or less excitement, so that in different stages of the malady we may have depression, even almost annihilation, of function, followed by increase of functional activity; but, in either condition, no one can deny there is disease and diseased action present. The author subsequently describes the rapid absorption of fat in cholera, which would seem to show that one function at least was active during the disease.

In the chapter on "Symptoms" are some very remarkable statements which we acknowledge are quite new to us. It is stated that many pregnant women of the Catholic faith, in order to have their progeny enjoy the saving benefits of baptism, entreated their attending physicians to perform on them the *cæsarean* operation, which the author states he saw done in several instances. He remarks that Dr. Baubien, principal physician to the Hotel Dieu Hospital, in Montreal, operated three times, Dr. J. Stephenson twice, Dr. Monro thirteen times, Dr. Vultee six times, and Dr. Robertson once. In justice to most of these practitioners, however, it should be stated that the operation was deferred, for the most part, till near the last moment of life, or till breathing had actually ceased; but we are told that in some instances "the fœtus was extracted while the woman was still living." We are not informed whether any children were saved by the operation; probably not.

An interesting "itinerary" of the disease in Canada in 1832, when the author occupied an official position in Montreal, is given, which proves very clearly its importation by emigrant vessels, and its propagation by infection.

Although we have taken the liberty of criticising some of the opinions and statements of the writer, we cheerfully admit the great originality and ability of the author, and have been much interested by his work. It forms a useful and important addition to cholera literature.

The pamphlet of Dr. Fletcher, illustrated with lithographic map and microscopic drawings, is a compilation from various writers, and contains nothing new or worthy of special notice.

The same remark will apply to Dr. Schieferdecker's brochure. The only remedy recommended is *cold water*, drunk copiously, omitting all other articles, and also used externally and by enema.

The pamphlet of Dr. Gilbert is a quack production, made up chiefly of quotations; the cause of cholera is said to be, "an excess of electricity, possibly surcharged with sulphurous acid, and is susceptible of being communicated by clothing and otherwise."

Dr. E. M. Snow's "Tracts for the People" are marked by ability and good common-sense, and are calculated to do much good. They should have a wide circulation.

Dr. Wm. Read, Health Physician of Boston, has done himself great credit, by advocating correct views as to the infectious properties of cholera, contrary to opinions formerly held by him; and proved himself more than a match for all who have entered the lists

against him. The city of Boston not only owes him a debt of gratitude, but something more substantial for his vigilance and sleepless energy in guarding its portals against the introduction of this fatal malady.

Dr. Batchelder's pamphlet was issued in 1849, and is mostly of a theoretical character. It is marked, as all the author's writings are, by originality and ingenuity. His reasoning goes to prove that the disease is infectious, but not contagious like small-pox, measles, etc., a conclusion to which most physicians have come since the recent introduction of the disease into the United States. The conclusion arrived at, however, is that the disease is neither infectious nor contagious; whether atmospheric or not, the writer does not say, only that "its cause is unknown to us." "Concerning its specific cause we are in the dark." It is regarded "rather as a predisposing, than a necessarily exciting cause," producing a "vehement contraction of the capillaries throughout the whole body, with a *relaxation of the pores*." "This is the peculiar and specific action of this choleraic agent, and it is this anomalous and unique effect which constitutes cholera a disease *sui generis*."

The *treatment* consists in causing the capillaries to relax and the pores to contract; and when this is done the disease is cured. As in diarrhœa and dysentery, there are three indications present: 1st. Constringe the pores. 2d. Relax the capillaries. 3d. Keep the patient quiet. The former is to be done by acetate of lead and opium, the last by perfect quietude. More reliance seems to be placed on the last than on anything else.

MEDICAL ELECTRICITY, EMBRACING ELECTRO-PHYSIOLOGY AND ELECTRICITY AS A THERAPEUTIC, WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE, ETC. By ALFRED C. GARRATT, M.D., Fellow of the Massachusetts Medical Society, Member of the American Medical Association. Third edition, revised and illustrated. Philadelphia: J. B. Lippincott & Co., 1866.

Now that the study of nervous affections occupies such a large amount of attention from general practitioners, that of medical electricity must of necessity be considered an important branch to cultivate. The profession are not very well informed in this particular department of therapeutics, as there has been too much mystification attached to it to render it a very attractive study for the busy practitioner. He does not feel that he has the time to spare to study it as a science by itself, but is content, however, to do so if he can be assured that his labors will be rewarded by the practical application of electricity to the treatment of disease. The author of the work has, with a very praiseworthy spirit, striven to enlighten his medical brethren upon this rather neglected therapeutic agent. To a certain extent he has succeeded. No one can read his work without learning a great deal concerning electricity, and being convinced of its great importance in the large field of nervous affections referred to by the writer. But at the same time the unprejudiced student cannot fail to make up his mind that electricity is made a sort of "cure all," a remedy without the use of which no case can be considered hopeless. Although the author has thus fallen into the very natural and dangerous error of supposing that his specialty is the most important one, the reader is lenient enough to forgive his enthusiasm in return for obtaining a great deal of useful and valuable information. The work is a very large one—too large to be read with comfort and profit, especially when a great part of it is taken up in the discussion of abstruse points which necessarily have no special charm for medical men in general. We cannot help thinking that if the book were half its size it would have more earnest readers, and this reduction in its bulk could easily be made without materially damaging the work or interfering with its usefulness. The author is well acquainted with his subject, and has done all in his power to fulfil his design of making it a comprehensive treatise upon the subjects of which it treats. There are a large number of woodcuts, and although they are not got up in the highest style of the art, they are sufficiently well done to serve their purpose. The work is well printed.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Vol. XVI. 8vo. pp. 869.

THE volume before us is an improvement on those that have preceded it, not only in the nature of its contents, but in its typographical excellence, and the very superior character of its woodcuts and chromo-lithographs. There are a greater number of really good papers contained in it than we are ordinarily accustomed to find in volumes of its kind. We would refer our readers to the following reports as very meritorious and as inviting attentive perusal: "On the Use of Sulphites of Lime and Soda in the Treatment of Hospital Gangrene, etc.," by Dr. A. Fisher. "On the Causation, Course, and Treatment of Insanity in Women," by Dr. H. R. Storer. "On the Value and Necessity of Vaccination and Revaccination for the Eradication of Small-Pox." "The Propriety and Necessity of Compulsory Vaccination," by Dr. J. M. Toner. "On Small-Pox, its Pathology and Treatment," by Dr. A. Nebinger. "On the introduction of Disease by Commerce and the Means for its Prevention," by Dr. A. N. Bell. "On Fissure of the Hard and Soft Palate," by Dr. J. Mason Warren. "On the Treatment of Chronic Inflammation of the Joints of the Lower Extremities," by Dr. L. A. Sayre. "On Exsection of the Wrist-joint," by S. W. Tewkesbury. "Dislocation of Sternal End of the Clavicle," by Dr. H. D. Holton. "The Climatology of Connecticut," by Dr. B. H. Catlin. "The Medical Topography and Epidemics of California," by Dr. Thomas Logan. The paper on "Morbid Growths within the Larynx" (Association Prize for 1864), by Dr. E. Elsberg, N. Y., is a well written and very interesting paper, and has connected with it some well executed chromo-lithographic representations of diseases of the laryngeal box. The prize essay for 1865, by Dr. H. R. Storer, of Boston, "On the Criminality and Physical Evils of Forced Abortions," is an exhaustive tract upon the subject, and has been ordered to be printed for popular distribution.

The volume, as usual, is a large and expensive one. It, however, becomes a serious question whether its cost of publication cannot be decreased by rigidly excluding all those papers which are worthless, and which serve so materially to swell the bulk of these otherwise valuable publications. In fact, this seems to be demanded at present by the low state of funds in the hands of the Treasurer of the Association. If an impartial exclusion of all worthless matter should be made by competent persons, we should not now be called upon to hear the humiliating statement that, unless voluntary contributions be made to supply a deficiency, the forthcoming volume cannot be published.

INSTRUCTIONS IN THE PREPARATION, ADMINISTRATION, AND PROPERTIES OF NITROUS OXIDE, PROTOXIDE OF NITROGEN, OR LAUGHING-GAS. By GEO. T. BARKER, D.D.S., Prof. of the Principles of Dental Surgery and Therapeutics in the Pennsylvania College of Dental Surgery, etc. Philadelphia. Rubencame & Stockton, 1866. 8vo. pp. 61.

THIS monograph has been written in order to induce further attention to an anæsthetic agent which the author maintains is of great value and usefulness. After giving a short history of the discovery of the gas, and

its physical and chemical properties, the different modes of preparing it are detailed, and the necessary apparatus for that purpose figured. The gas, as is well known, is formed by the heating of nitrate of ammonia in a suitable retort. It is then purified by passing through wash-bottles containing solutions of caustic potash or soda, sulphate of iron, and water; and when thus washed, it is freed from chlorine, binoxide of nitrogen, and any other impurity. The author recommends a velvet cork for the retort containing the salt of ammonia, instead of a ground-glass stopper, as it is exceedingly difficult to keep the latter perfectly tight when the gas is being generated; and, moreover, if tightened when the retort is heated, it is with great difficulty that it can be loosened when the vessel is cold. In order to do away with the unsightly rubber bag containing the gas, Dr. Barker has been in the habit of conveying the anæsthetic to the patient by a tubing through a partition directly from the receiver in an adjoining room. He contends that a fresh preparation of gas need not be made every day, as he has used with the best of result that which had been kept over water for two weeks at a time. For the production of anæsthesia, it is considered necessary that the nitrous oxide should be administered unmixed with atmospheric air, and to this end he advises the use of an accurately fitting mouth-piece, supplied with two valves, one for the admission of the gas and the other for the escape of the carbonic acid exhaled. "The first evidence of anæsthesia with the majority of persons," says the author, "is snoring, not the deep, stertorous breathing as seen in anæsthesia from chloroform or ether, but more like the snoring of deep, heavy sleepers. Snoring does not usually occur when the patient is in a recumbent position, the only test of insensibility being the relaxed condition of the muscular system."

When the operation is a protracted one, the inhaler is advised to be removed every few minutes, in order to allow the lungs to be filled with atmospheric air; this procedure, however, does not interrupt the anæsthetic condition. The longest time that the author has kept any patient under its continuous influence has been twenty minutes. His opinion is that "the chief danger in nitrous oxide consists in the rapid formation of carbonic acid gas." His theory of its action, although to a certain extent plausible, is not rendered tenable by any argument he offers in favor of it; and upon an equally slim foundation he bases the assertion that the anæsthetic properties are due to stimulation, and that the agent is consequently less dangerous than ether or chloroform. The conclusion of the work is occupied in a detail of two alleged cases of death from inhalation of the gas, together with some general remarks upon the use of the anæsthetic.

Dr. Barker has given to the profession the results of some extensive experience with the use of this gas as an anæsthetic, not only in dental but in surgical operations, and has thus done a good service, and has performed a task which must be appreciated. Nitrous oxide gas has certain claims as an anæsthetic, but we need still further experience in its use, and a more thorough trial of its benefits, to be convinced of its superiority in any one respect to either ether or chloroform.

Electricity and Growth.—M. Poggiale tells the French Academy of Sciences that electricity, in his opinion, has a direct influence in developing the physical and intellectual qualities. In one month, by electric baths, etc., he added three centimetres to the height of a youth who was a positive abortion intellectually and physically, and raised him from the bottom to the top of his class (!).—*Dublin Medical Press and Circular.*

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 14, 1866.

Dr. Frank H. Hamilton, President, in the Chair.

ENCEPHALOID TUMOUR OF TESTICLE.

Dr. Hutchison presented an encephaloid tumor of the testicle which he had removed by operation from the groin of a large, healthy-looking patient, 52 years of age. The gentleman stated that there had never been any hereditary disease in his family. His virile powers were as good as they had ever been; indeed, he thought them more pronounced than formerly, which latter fact he ascribed to his not indulging his sexual appetite to the same degree as formerly, on account of the inconvenience occasioned by the position and size of the tumor. It is hardly necessary to say that the testicle of the affected side had never fairly descended into the scrotum; and from the description which the patient gave of the original appearance of the parts, Dr. H. was inclined to think that the organ occupied the inguinal canal, just external to the external abdominal ring. He first noticed a swelling at that point a year and a half before Dr. Hutchison saw him, which was about a year and a half ago. It gradually increased in size without giving rise to any pain, until three months ago, when he received a blow upon the tumor by running against another person. This injury was followed by very severe pain, which continued for several hours, and by uneasiness and soreness, which lasted for nearly two months. Immediately after this the tumor enlarged considerably.

"I first saw him," said Dr. H., "in December, and had him under observation a month before an operation was decided upon. I found the tumor occupying the inguinal region, commencing two and a half inches within the anterior superior spinous process of the ilium, and extending downwards in the direction of the inguinal canal, its size being equal to that of the half of a small cocoanut. The upper portion was distinctly fluctuating, the lower portion being more solid; its surface was perfectly smooth; there were no nodules, neither was there any tenderness on pressure. I advised him to submit to an exploratory operation for the purpose of deciding the nature of the tumor, and also of removing it in case I thought proper. Before making the incision I asked him, if I saw fit to remove the testicle, whether he would consent to have it done. I could not succeed, however, in obtaining his consent. I made an incision half an inch in length through the upper third of the swelling, and soon entered what proved to be the cavity of the tunica vaginalis, from which some four ounces of bloody fluid was discharged with a few old clots. I then passed the finger around the tumor, which was then exposed, and found that I could easily detach it from the tunica vaginalis reflexa; and though not having received his sanction for the measure, I thought myself warranted in taking upon myself the responsibility. The adhesions to the tunica vaginalis were very slight, and easily broken up by the finger. A ligature was applied to the cord, and the tumor was then removed. After it was removed, I was surprised, on cutting it open, to find that the part where fluctuation was so distinctly and well marked, was actually solid. The section presented the smooth, glistening appearance usual in such case, and looked as much like brain as anything I have seen that is not brain. Two or three blood-vessels only were tied, and the patient had a very satisfactory recovery. I may remark that I

examined for the glands in the region of the tumor; and though I did not feel them on account of the corpulency of the patient, I do not think that there is any satisfactory evidence that they are not enlarged. The specimen was examined by Dr. Speir, Curator of the Brooklyn City Hospital, who found it to be medullary cancer. I carried the finger up to the internal abdominal ring, after I had removed the tumor, and found it perfectly tight."

RENAL CALCULUS.

Dr. FINNELL presented a small bean-shaped urinary calculus which had been passed by a young man who for some time had been in feeble health. He had been ailing for at least two months, with a dull aching pain in the region of his left kidney. This pain gradually increased until it became very severe, obliging him to take morphine at night to procure sleep.

One evening the patient suddenly got rid of his pain by passing a calculus into the chamber. The size of this stone was somewhat unusual, it having the following dimensions for three of its diameters: three-eighths of an inch for one, half an inch for another, and five-eighths of an inch for another. Its passage from the kidney to the bladder occasioned the patient more distress than from the bladder through the urethra. The urine of the patient had been quite scanty for some time previous to the passage of the calculus, but afterwards for several days it became quite abundant. The presence of a urinary calculus was suspected from the first, and the patient was urged to have patience and wait for the desired result. The treatment consisted in the occasional use of the warm-bath, and the administration of morphine.

Dr. HAMILTON remarked that he had used frequently in these cases with success, spirits of turpentine in doses of from twenty to thirty drops every hour or two until relief from pain was afforded. The remedy was first suggested by Dr. Physick of Philadelphia, and was not intended so much for its diuretic effects as for its sedative action upon the nervous centres; and in this respect, the same effects were sought after in a great variety of nervous affections in which this remedy was so useful.

Dr. KRACKOWIZER remarked that spirits of turpentine in conjunction with sulphuric ether was a well known and valuable sedative in the treatment of the biliary colic occasioned by the passage of gall-stones.

Brevet Lt.-Col. J. J. MILHAU, U.S.A., presented to the Society on behalf of the Surgeon-General, a copy of Circular No. 6.

OTITIS—EXFOLIATION OF ENTIRE INTERNAL EAR—EXOSTOSIS—MENINGITIS, ETC.

Dr. AGNEW presented a specimen of brain, etc., and remarked upon it as follows:

"The specimen before you, sir, is a brain which I removed this morning from a man forty-two years of age, who died about eight o'clock yesterday morning of inflammation of the brain consequent upon suppurative otitis. I saw him originally four years ago. At that time he was suffering intensely from suppurative otitis of the right ear, which had lasted with occasional intermissions, for thirty-two years. I made a critical examination of his right ear, and found that it was totally deaf, and that the external auditory canal was occupied by a roughened body which, on examination, proved to be a bony sequestrum. By an incision of the meatus I removed from the depth of the external auditory canal a bony sequestrum which included the entire machinery of the internal ear. It showed the cochlea and semilunar canals complete; and some will call to mind the appearances of this sequestrum as delineated in a woodcut published in the New York *Medical Journal*, with a history of the earlier phases of the case. Immediately after the removal of this sequestrum, his general condition improved, but hearing in that ear was of course entirely gone. I saw him occasionally from that time until a few months ago for exostosis of the left external auditory canal, the consequence of old inflammation. The growth was so threatening that, after a trial of several topical applications which are known to be valuable in delaying the increase of such growths, he was advised to have an operation performed for its removal. I proposed to cut down upon the meatus, and chisel away the exostosis, which I thought could easily be done, as, fortunately for such a purpose, the growth sprang from the rim of the meatus. He however concluded not to have it done, and shortly afterwards went abroad to seek other advice. I did not see him again until half-past nine on Sunday last, when I was sent for in great haste. I found him sitting up. As I went into his room he recognised me, stretched out his hand, and attempted to give me an account of his condition. He said distinctly with a loud voice and considerable effort, "I have a pain," and then apparently lost the power to select and enunciate the words he intended to use, put his hand up to his head as though he would like to say "pshaw!" for his incapacity, and immediately afterwards subsided into an apathetic state. After a few moments he made another attempt to speak, and the result was the same. I was told that for ten days he had suffered from an increasing pain in his left ear, and that his hearing had been gradually getting less and less, until it had become so seriously impaired that it was only by raising the voice to its utmost pitch, that his friends could make him hear them. There was no puffiness over the mastoid process, and in a word there were no external appearances by which we could decide that otitis was progressing. But from the history given, I was convinced that an acute inflammation had come on in the middle ear on that side (left), and that there had resulted inflammation within the cranium. I applied leeches to the mastoid process, and put him on the bromide of potassium, but without effect. The leeches at first seemed to give him some relief; on Monday, however, he became comatose, and died on Tuesday morning.

"The post-mortem was made this morning by Dr. Roosa and myself. We removed the calvarium in the usual way, and observed, as the saw penetrated the dura mater beneath the frontal bone, that some pus exuded. On removing the calvarium, it was very evident that a very general inflammation of the contents of the cranium had taken place. On the left side, corresponding to the side on which we supposed the suppurative otitis to be progressing, there were marked inflammatory changes in the membranes of the brain, and a considerable quantity of sero-purulent fluid escaped on section of the dura mater. I have not made any section of the substance of the brain, preferring to leave it for some of the members. After examining the superficies of the brain, and then removing the organ, we came down upon the floor of the cranium. The dura matter was found rather more firmly attached to the petrous portion of the temporal bone than natural; and at two spots *ulcerations* in the membrane were seen, through which the scalpel was let down upon roughened bone.

"I was greatly embarrassed in the examination of the case on Sunday, by my inability to explore the external auditory canal. This inability is illustrated by noticing the extent to which the external auditory canal is occluded by this growth. This is the temporal bone, taken from the left side, showing a portion of the dura mater attached, through which membrane

these two ulcerations, overlying the wall of the internal and middle ears, are seen penetrating. On the outer side, the dura mater was firmly attached to the petrous portion of this bone, and had a dense, striated look, as though it had at some previous time suffered from an inflammatory attack.

"I propose to have a careful dissection of these two bones made, and shall then hope to complete the history. The case, aside from the intrinsic interest which invests the exfoliations of the entire internal ear, has an additional interest in this point of view; here we find the evidences of very severe cerebral inflammation, and yet the sufferer did not take to his bed until less than forty-eight hours before his death. Even then, twenty-four hours before his death, desiring to go to the water-closet, he went out without any assistance from his nurse into the hall. It seems to me that the lesion of the brain gives ample evidences of the fact that the inflammatory mischief lasted for a week or ten days before the final issue."

In answer to a question, Dr. A. stated that the pupils were mobile, but that as the result of the inflammation in the internal ear, extending to the seventh pair, that nerve was paralysed. And in answer to a query from Dr. Roosa as to the cause of the cerebral inflammation, he gave it as his opinion that the partial occlusion of the external auditory canal caused an accumulation of the ceruminous secretion, which, in its turn, gave rise to suppurative inflammation of the tympanum, which extended to the cerebrum.

Dr. Roosa remarked that Toynbee referred the causes of exostosis in this particular locality to the existence of a gouty diathesis. Dr. R., however, was inclined to dissent from this view, and maintained that they had their origin in periostitis, and instanced four or five cases in which this primary condition was obtained as the result of long-continued suppurative inflammation of the external auditory canal.

Dr. Agnew remarked that Toynbee had an opportunity of examining this case, and advised against operative interference.

Dr. Hamilton asked if it was not unique to observe perforation of the dura mater under such circumstances.

Dr. Agnew never recollected having seen a similar instance.

Dr. Krackowizer referred to a case of inflammation of the middle lobe of the cerebrum, evidently dependent upon otitis, and yet no connexion between the two points of inflammation could be made out.

Dr. Post stated that Dr. Agnew's patient had been under his care for some time, during which he suffered from various forms of diseases of the ear. He had polypous growths and inflammatory attacks. In one of these attacks it was thought that his life would then be compromised by an extension of the disease to the brain. Dr. Post remarked in this connexion that he found it a very difficult thing, when children were affected with chronic inflammation of the ear, to persuade parents of the necessity for having the disease treated, the almost universal reply to such an entreaty being that the child would outgrow it. This idea, he had no doubt, originated in the assurances in most cases of the attending physicians. He then referred to a case in point that had come under his observation, in which such advice had been neglected; and the patient, a young woman, died at the age of sixteen or seventeen, from inflammation of the brain. Such cases, he believed, were by no means uncommon.

TUMOR OF VULVA.

Dr. Post then presented a tumor which he had removed two or three weeks ago from the left labium of a married woman. It had been about eighteen months since it first made its appearance as a small pendulous growth, which the patient supposed was nothing more than a wart. It grew from the cutaneous surface of the labium, near where the skin and mucous membrane join each other. In the course of eighteen months, during which period she had a child, it increased rapidly in size. The tumor was of a flattened, ovoidal shape, translucent, and was connected with the integument of the labium by a long pedicle, so as to appear as if it contained a fluid, but having a somewhat firm feel. After its removal, an incision was made through its substance, when it was found that a considerable quantity of fluid escaped, but not sufficient to cause it to subside.

Dr. Furman stated that, eight years ago, he removed a similar growth from the same situation in a married woman. The removal was effected by ligature.

The Society then went into executive session.

Correspondence.

THE TREATMENT OF CATARACT.

London, August 4, 1866.

TO THE EDITOR OF THE MEDICAL RECORD.

Dear Sir—I venture to send you a few scraps from my notes among oculists, not undertaking the heavy scientific, but chatting about what comes uppermost. Seven years have made a marked change in many features of London—great hotels, quite like New York; lines of rail both above and below ground, where steam does the work; and so, too, I find that in eye disease men have not been idle. The renaissance which began twelve years ago with the ophthalmoscope has pervaded the whole ophthalmological mind. I was witness to its early stages, and see now a wondrous development.

It will not do to say of London now that it is a great place to see cases and little else; one finds much to learn as well as to observe.

The Moorfields Hospital still keeps its preëminence, both for the number of its patients and the general ability of its surgeons. Bowman and Critchett, Hulke and Hutchinson, Wells and Streatfield, Couper, and Bader, and Dixon, are men who know how to teach and practise ophthalmic surgery in its highest walks. The peculiar subject of study just now is how to deal with cataract. Mr. Bowman has devised his "traction method" for hard cataract, and the syringe for soft cataract. Mr. Critchett has been doing the "scoop operation" for hard and mixed cataracts. The "scoop operation" and the "traction method" do not differ essentially. Both get the lens out by means of a small instrument introduced into the eye behind the cataract; in both the wound is made one-third smaller than is needed for flap extraction; in both the capsule must be very freely torn, and in both a small piece of iris is excised before getting out the lens. Mr. Bowman is, as he says, still "experimenting," and judging from his perseverance, after having already done more than a hundred such operations, he prefers this to the older modes of operating.

It is the judgment of those who see many of his cases that the average success in his hands is greater than by the flap section. But they also say that the proper management of the tractor or spoon is extremely delicate. In this, as every one knows, Mr. Bowman excels, and his results would far surpass those of ordinary operators. Many of his cases require subsequent operations for artificial pupil, because iritis is very likely

to ensue, or the capsule to become greatly thickened. There is no doubt that in hands little skilled the spoon is very likely to cause loss of vitreous, or premature displacement of the lens, and consequent difficulty in delivery. An accurate diagnosis of the size and consistency of the cataract must be made or the operation will go awry. Inspection by oblique illumination, and even perhaps by a microscope, must give this information.

Mr. Critchett, who has as much ingenuity in devising as dexterity in executing operations, has lately done fewer "scoops" (excuse the slang), having acquired a dislike to the introduction of so large an instrument into the eye. He operates by a modified linear extraction. He uses Graefe's new narrow knife to make a section above, which has its extremities in the sclera and its middle in the cornea. Its form is nearly linear, the curve having a long radius, and the plane of the cut being much less oblique through the cornea than must be made by a Sichel's knife; it is equal in length to one-third or one-fourth the circumference of the cornea. The length must be determined by careful diagnosis of the size and hardness of the cataract. The next step is to make a small iridectomy, then to freely open the capsule, and the final manœuvre, and the most important, is to get the lens out. Mr. Critchett uses two curettes, one to make pressure at the lower part of the cornea, and the other counter-pressure at its upper part. As the lens comes to the wound, he presses back the upper lip, to diminish resistance, and pushes in the lens from below; if it catches, helps it along at the point of difficulty, and thus coaxes it to delivery. This process is not to be formulated—it is simply skilful manipulation. Vitreous may be lost if the lens prove too big for the section, or, rather, if the cut be too small for the lens (a false diagnosis); but by not putting the spoon inside the eye this chance is less likely to occur.

The line of effort nowadays in the removal of hard cataract is to do it through the smallest wound, and with the least violence. The coincident performance of a small iridectomy is quite generally adopted, and if instruments are used to help out the lens, it is generally conceded that they must be very small, and be put inside the eye with the utmost gentleness and unfrequency.

Mr. Wilde, of Dublin—I beg his pardon, Sir William Wilde—and Mr. Dixon, of Moorfields Hospital, both adhere to the old method of flap extraction. Mr. Dixon uses the same short knife which I saw him use with great dexterity seven years ago. It is a knife which requires an exceedingly rapid plunge across the anterior chamber to make a satisfactory section.

Mr. Hulke was kind enough to show me some of his microscopic preparations. He has for six years been working at the minute anatomy of the retina, and will shortly publish another paper on the subject.

Another point of attraction for an eye surgeon is Guy's Hospital. Mr. Bader was appointed ophthalmic surgeon several years ago, and he has a most interesting service. He has wards containing thirty beds, which he devotes to cases requiring operations; he also has a large dispensary service. Nothing can be more thorough than the way in which eye surgery is here practised. Notes are kept of all cases, by the help of assistants; examinations of vision, of the state of refraction, tension of globe, &c., &c., are most accurately made. The operations are done with great skill and boldness, and the ample funds of the hospital have enabled Mr. Bader to secure a most complete apparatus for both operative and diagnostic uses. Mr. Bader is curator of the museum of Moorfields Hospital, and has made a vast number of morbid and normal preparations, and has also had taken a great number of colored drawings of ophthalmoscopic appearances. We shall soon have the benefit of his labors in a book, which he expects to issue about the 1st of October.

I have more to write of London, and cannot omit to mention Mr. Toune, the artist in wax of Guy's, whose models are such marvels of plastic skill. The reader of Guy's Hospital reports will see that Mr. Toune has eyes for science as well as for art. He has, in a series of papers on the stereoscope, been propounding some views of the philosophy of vision, which are very original and differ widely from many of the notions now held. They result from careful and numerous experiments, and are the fruit of vigorous and original thinking. I cannot undertake to condense them, nor are the papers complete. Some of his most important deductions will appear in the next number of the reports. I shall not soon forget the hour which Mr. Toune gave me in expounding his views. But your space must be exhausted. Truly yours,

HENRY D. NOYES, M.D.

THE TREATMENT OF ASIATIC CHOLERA, AS BASED ON PHYSIOLOGY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—After death from cholera the most marked changes are found in the intestines and in the blood. The mucous membrane lining the intestinal canal shows a condition of intense hyperæmia, while the blood is much darker and thicker than in health, and has often been compared to molasses; furthermore, all the blood is contained in the venous system, while the arterial is empty.

This appearance presented by the intestine has given rise to the general opinion that cholera consists essentially in an intense congestion of the intestinal capillaries, and that the copious rice-water discharges are mainly the watery portion of the blood, escaping from the veins to relieve them from over-distension; and in fact some high authorities insist on this being a salutary effort of nature to rid herself of a blood-poison, and attempt to aid her by administering large and frequent doses of saline and other cathartics.

If we examine other diseases in which there is congestion of the intestinal organs, we find them beginning with a chill; the blood leaving the external portion of the body and rushing to the internal causes a coldness of the parts which have been deserted. But we have no chill marking the advent of cholera, and, if the intestinal capillaries are congested, the external portion of the body has suffered no deficiency in its circulating fluid; and since one part cannot have an increased quantity of blood without depriving another organ, where does the blood come from that causes this congestion? Again, diarrhœa is one of the earliest symptoms, and, if dependent on congestion, the cause must be in operation very early in the disease; yet we know cholera to be a disease easily cured in the stage of preliminary diarrhœa. Now, if we succeed in curing the diarrhœa, we must have cured the congestion on which it depended. But is this in accordance with every-day experience? Do we see congestions of such intensity subsiding so readily in other portions of the body?

For these reasons I do not believe congestion, although seen after death, to be the essential cause of the disease; and if there is no congestion there can be no need of the veins pouring out serum to relieve distension; therefore we must abandon the idea of "excessive watery effusion."

How, then, is the diarrhœa produced?

Physiology teaches us that there is constantly going

on in health a passage of water into the intestinal canal from the capillary system, which is immediately reabsorbed by the veins, carrying with it into the general circulation the products of digestion fitted for assimilation. According to Drs. Bidder and Schmidt, the fluids passing into the intestinal canal from this source amount, in a person weighing 140 pounds, to from 21 to 25 pounds per day, of which 96 per cent. is water; and yet in health this is all reabsorbed, together with the varying quantity of fluids taken by the mouth. In fact, the whole tract of small intestine, with its mucous coat thrown into folds to increase the surface, does very little else than absord fluids. This calculation of Drs. Bidder and Schmidt can hardly be an over-estimate, since all physiologists estimate the gastric juice alone at from fourteen to sixteen pints a day.

Now, if absorption or endosmosis of these effused fluids be entirely arrested, and effusion or exosmosis go on, it is evident we will have from twenty-one to twenty-five pounds of water accumulating in the stomach and intestines, together with the fluids which have been swallowed. Surely enough to account for the copious vomiting and diarrhœa, without any extra effusion. This, I believe, occurs in cholera. The effusion of liquid into the intestinal canal is not excessive, but its reabsorption is by some means arrested, and the fluid, instead of passing back into the veins, is passed off by vomiting and purging; and when we remember that the bile is a recrementitious substance, being secreted to perform its function in digestion, and then be *reabsorbed*, we can understand why the stools in the early part of the disease should be colored with that material. Later in the disease the stools lose this bilious character; and it is just what we would expect, for the veins, absorbing nothing from the intestine, can furnish nothing to the liver, and for this reason, the ingredients of the bile being absent, the bile itself must be absent. I believe a proof of this theory of arrested absorption, in opposition to that of increased effusion, may be claimed from the large doses of narcotics which are sometimes taken without producing harm; for such quantities of laudanum and other preparations of opium could not be taken into a system already poisoned with urea, from the arrest of the renal secretion, without producing coma, if not death.

The consequence of this loss of water from the blood will be to reduce it to a condition resembling molasses, while the whole system feeling the want of water, thirst is a prominent and painful symptom.

In health the arterial circulation is maintained by the contractile power of the heart and arteries; the venous circulation is carried on by the capillaries being constantly kept full, thus crowding the blood along. It is also aided by respiration, for as the chest expands air rushes down the trachea to the lungs, and blood rushes along the veins to the heart. Another powerful aid is the contraction of muscles, especially to those veins furnished with valves.

The pressure exerted by the heart and arteries on the blood, according to Prof. J. C. Dalton, Jr., is equal to 150 millimetres of mercury, while the pressure necessary to force defibrinated blood through the circulatory system by the aid of a syringe is equal to 130 millimetres of mercury. So it is evident that the power exerted by the heart and arteries alone is sufficient to complete the entire round of circulation. Now we have already seen the blood to be increased in density by the loss of water, and for this reason the heart is unable to complete the circulation; the consequence is, the blood stagnates somewhere, and that will be just where it is subjected to the least pressure from contractility and elasticity—that is, in the veins and capillaries. This I believe to be the reason why we find the venous system filled with blood, while the arterial is empty; and in the same manner the blood, collecting in the capillaries of the intestine, causes the apparent congestion. Two other symptoms claim attention in connexion with this point—the muscular cramps and increased number of respirations. I have before stated that the venous circulation was aided by respiration and muscular contractions. May not these two symptoms arise from the efforts of nature to aid the venous circulation by powerful contractions of muscles, and by increasing the frequency of respiration?

The treatment of cholera has been almost universally based on the theory of congestion and excessive effusion. Opium and astringents, from their well known power of checking intestinal secretion, have been mainly relied on, but as I do not believe the secretions to be excessive, I do not believe they are of any service; and those who have passed through the epidemics in this country bear testimony to their inefficacy, except in the stage of preliminary diarrhœa.

Headland, in his "Essay on the Action of Medicines" (page 63), says, "The great majority of medicines must obtain entry into the blood, or internal fluids of the body, before their effects can be manifested;" and in a note quotes Mialhe as saying, "A remedy must be absorbed before it can exert any remote action on the animal economy." Headland also states (page 424): "In Asiatic cholera or colliquative diarrhœa, laudanum may be *poured* into the stomach with little more effect than water;" and this, I take it, because absorption is arrested. We have seen the trouble with the circulation to be caused by the altered blood; the heart itself is not at fault, and it is useless to resort to stimulants to try and force that organ to increased action; we might just as well whip a horse for not drawing three tons when his strength is only equal to one. From a vague notion that the disease is in some way connected with hepatic disorder, calomel is given to "unload the liver," when the bilious stools of the first stage show the liver to have unloaded itself. This idea arises from the fact that the reappearance of bile in the stools is a very favorable sign; and hence the supposition is that the bile for some reason was unable to get to the intestine. Now we often see patients in whom the excretory ducts of the liver are obstructed by gallstones, and yet they have no symptoms resembling those of cholera. Still more conclusive is the fact that physiologists have tied the biliary ducts of dogs, and then established fistulæ leading into the gall-bladder, the consequence being rapid emaciation, every particle of fat disappearing from the body, but death does not necessarily follow; for M. Blondlot kept a dog, in whom this operation had been performed, five years. Although the reappearance of bile in the evacuations is a favorable sign, it is not simply because the bile is again poured out by the liver, but because it shows the bile to have been formed, and, as a necessary prerequisite, absorption to be going on in the intestinal canal.

Every symptom of cholera points us to the necessity of restoring the function of absorption, and to do this we must first understand the laws which govern the passage of fluids through animal membranes, or, as it has been called by Dutrochet, the discoverer, *osmosis*. These laws are—1st. If a moist membrane be placed between two fluids of different degrees of density, there will be two currents passing through the membrane, one from the rarer to the denser fluid, and one from the denser to the rarer, and, other things being equal, the former will be the more rapid. 2d. The stronger current will be from an acid to an alkali. 3d.

The more rapid current will be from a passive fluid towards one in motion. 4th. An elevation in temperature increases the rapidity of the currents. 5th. It is different in different membranes. The three first of these laws are of most importance in intestinal absorption. In cholera the blood is moving more slowly through the capillaries than in health, from its increased density; here is one fact which tends to retard endosmosis, or the passage of fluid from the intestine into the veins. The blood is alkaline, so are the fluids passed by stool; another condition tending to check endosmosis. The blood is increased in density, a condition favorable for absorption.

Now the indications for treatment drawn from these conditions are, first, to hasten the flow of blood through the venous and capillary systems, and, second, to acidulate the fluids contained in the intestinal canal, and by these means favor endosmosis. The only way in which we can hasten the circulation is by diluting it, and in some cases it may be necessary to use injections into the veins, of warm water alone, or containing alkaline salts in solution. In cholera epidemics these injections have been used with what at first seemed entire success; the patients, who were all, I believe, in deep collapse, were so far recovered as to sit up and talk with each other, and some transacted important business, but the diarrhœa continuing, they at length died.

The mineral acids have long been used in cholera for their *astringent properties*, and they have been as beneficial as any other medicines, if not more so. The Austrian government paid a large sum of money for a secret cholera remedy, the basis of which was sulphuric acid. As another proof in favor of acids, I would state that good "hard cider" has long been considered by some as a preventive; may it not be on account of the acids it contains?

This, then, is the treatment I would recommend *for trial:* Acids, with a view to their aiding endosmosis, either alone, or, in extreme cases, coupled with injections of warm water, or warm solutions of alkaline salts, into the veins.

With regard to the kind of acid to be used, I should prefer some of the organic class, as they can generally be taken in large doses without danger, and are decomposed in the blood. Perhaps citric or tartaric would be as well as any other, or in their absence ordinary vinegar, in large quantities.

Whether my deductions with regard to the treatment be correct or not can only be proved by experience; but experience has shown the inefficacy of the old plan of treatment by astringents and stimulants; and I believe, if ever we do succeed in finding a cure for cholera, it will be based on physiology rather than on morbid anatomy.

Yours truly,
STEPHEN W. ROOF, M.D.

313 WEST FORTY-SECOND ST., N. Y.,
July 2, 1866.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK will hold its Sixty-first Anniversary Meeting on Monday evening, October 1st. Officers for the year, and twenty-one delegates to the State Medical Society, will then be elected. A social reunion, embracing within [illegible] invitations to leading members of the various [illegible] societies, is likewise contemplated.

[illegible]GHTINGALE'S valuable little book on [illegible]een translated into the Swedish lan-

Obituary.

RICHARD VARICK PELL, M.D., NEW YORK.

DIED at Bellevue Hospital, of Cholera, August 22, 1866, Richard Varick Pell, M.D., Senior Assistant-Surgeon, First Surgical Division.

At a special meeting of the Bellevue Hospital Medical Union, held August 22, 1866, the following preamble and resolutions were unanimously adopted:

Whereas, It has pleased Almighty God, in His inscrutable Providence, to remove from among us our late friend and associate, Dr. Richard V. Pell, by a sudden and unexpected death, from pestilential disease contracted while in the performance of his duties in this hospital,

Resolved, That we heartily deplore the great misfortune which has thus cut short the life of one who, already by his talents, energy, and strict devotion to duty, gave great promise of a successful and useful career.

Resolved, That we will ever cherish with the warmest feelings of esteem and respect the memory of our departed friend, whose social and intellectual qualities had endeared him to us all.

Resolved, That we attend the funeral in a body, and wear as a mark of respect the usual badge of mourning for thirty days.

Resolved, That we transmit a copy of these resolutions to the family of the deceased, and that they be published in the *New York Times* and MEDICAL RECORD.

W. W. JOHNSTON, M.D.,
D. M. CORY, M.D.,
W. R. FISHER, M.D.,
Committee.

New Publications.

BOOKS AND PAMPHLETS RECEIVED.

REPORT OF THE DIRECTORS OF THE EXPERIMENTAL SCHOOL FOR IDIOTS AND FEEBLE-MINDED CHILDREN, to the Governor of Illinois. By G. T. WILBUR, M.D.

VALEDICTORY ADDRESS TO THE GRADUATING CLASS OF THE N. O. SCHOOL OF MEDICINE, by Prof. J. L. CRAWCOUR, M.D., 1866.

Medical News.

PERSONAL.

Brevet Col. Wm. J. Sloan, Surgeon U. S. Army, has been assigned to duty as Chief Medical Officer at New York city.

Major J. E. Summers, Surgeon U. S. Army, has been announced as Medical Director on Major-General Thomas's staff.

Also, Major and Brevet Colonel C. S. Tripler, Surgeon U. S. Army, Medical Director on Major-General Hooker's staff.

Surgeon Samuel Jackson, U.S.N., has been detached from duty at Navy Yard, Boston, and ordered to steamer *Pensacola;* Surgeon Richard C. Dean, from duty at Naval Academy, and placed on waiting orders; Surgeon Wm. Johnson, from duty as a member of Retiring Board at Philadelphia, and ordered to duty at Navy Yard, Boston; Surgeon Wm. S. W. Ruschenberger has been ordered to duty as a member of Retir-

ing Board, in session at Philadelphia; Surgeon David Harlan, to duty at Naval Academy.

Dr. Edward A. Crane, formerly of the Medical Department of the United States Sanitary Commission, is about to visit Paris to attend the great *Exposition d'Industrie.* He will take with him, for exhibition, specimens of all the improvements which were adopted by the Sanitary Commission for alleviating the horrors of the war during our recent contest.

Brevet Brig.-Gen. John M. Cuyler, U.S.A., has been assigned to duty as Medical Director, Department of the East.

Brevet Col. T. A. McParlin, Surgeon U.S.A., has been appointed Medical Director upon the Staff of Maj.-Gen. Sheridan, U.S.A.

Dr. Jones, Prof. of Chemistry in the Medical College of Georgia, has resigned, and Col. George W. Rains, who was Assistant Prof. of Chemistry at West Point for three years previous to 1846, has been appointed to the vacant chair.

Dr. Nathan Hayward, son of Dr. Hayward, of Boston, Mass., and Surgeon of the Twentieth Massachusetts Regiment during the war, died of cholera at his residence in St. Louis, Mo., on the 17th ultimo.

Dr. John Collett died suddenly at Peekskill, N. Y., on Wednesday morning, August 15.

A French statistician gives 49,619 as the number of hunchbacks in France, or one and one-fourth for every thousand inhabitants.

Sir Charles Hastings, M.D., D.C.L., the founder of the British Medical Association, died on Monday, July 30, of chronic intestinal—disease, in the seventy-third year of his age.

The New German Hospital, the corner-stone of which was laid on the 23d inst., is to be built upon the ground inclosed by Seventy-sixth street and Seventy-seventh street and Lexington and Fourth Avenues. The present project is to build two pavilions, one for administrative purposes, and the other for a laundry, engine and boiler room. Each pavilion is to be one hundred and sixty-seven feet long by fifty-two feet wide in the centre, where the wards are to be. The administrative building will be sixty by eighty feet, and the laundry forty-two by sixty feet. The pavilions are to have a cellar, basement, first and second stories, and an attic. The principal wards on the first and second stories are to be one hundred and six feet long, twenty-seven feet wide, and sixteen feet high, accommodating thirty-two patients each, allowing fourteen hundred and thirty-one cubic feet to each patient. The physicians', nurses', and convalescent rooms, and dining-halls and other offices, are at the end of the pavilion. The wards are to be heated by hot air; cold air in summer can also be obtained from a large air-shaft outside the building, receiving its supply some thirty feet from the ground.

The basement is to be devoted to accident and ophthalmic wards, examining, store-rooms, closets, etc. The attic is to be appropriated to private wards, attendants' rooms, also for the tank and ventilating purposes. In the first story will be the chapel and private wards. The upper story is to contain the operating theatre and servants' bedrooms. The buildings are to be built of hollow brick walls, with stone trimming for the doors and windows, and to be connected by corridors inclosed in the basement. The dead-house will be a separate building, on the ground fronting on Lexington Avenue, having an observation ward for contagious or doubtful diseases. It is admirably situated for hygienic purposes, as the location is in the vicinity of the Park, and is surrounded with beautiful scenery. The plans and designs were drawn by Mr. Charles Pleiffer, architect, Broad street. The President of the Society erecting this philanthropic institution is C. Godfrey Gunther, and the Secretary is William Wallack. Messrs. Emil Sauer, Carl Kohler, and Dr. Krackowizer form the Building Committee. One hundred thousand dollars have already been raised, and the balance is to be obtained by subscription from the German population of New York.

Proposed Permanent Quarantine at West Bank, in the Lower Bay of New York.—It is now settled that a permanent quarantine establishment will be located on *West Bank*, which lies about two miles from Staten Island, about five miles from Fort Hamilton, and midway from New York city to Sandy Hook. From the fact that this bank is covered by water to the depth of seven feet at low tide, the creation of an artificial island is rendered necessary. According to the plan proposed, this island will be an irregular hexagon in shape, 448 feet in its greatest length, and 228 feet in its greatest width. The exterior wall will be formed of cribs of white pine or white spruce timber, filled with earth and stones. The timbers of these cribs will be fourteen inches square at the base, and twelve inches square above, laid so that they touch each other, and fastened by heavy iron bolts. The entire exterior of this wall will be protected (shingled) with stone, either granite, gneiss, or trap, in large pieces, laid in rip-rap, extending from the base horizontally at least fifteen feet, and perpendicularly thirteen feet, or up to high-water mark. The entire space inside this wall is to be filled with earth and stone, to constitute the foundation of the requisite superstructures, which are to be a building for the resident physician, an eight-pavilion hospital, and separate buildings for the disinfection of person, clothing, and baggage, besides a proper receptacle for the dead. The contract has been awarded to Francis Swift, who is to construct the island and erect the buildings, on or before June 1, 1867, at a cost of $310,218.

Curious Statistical Facts regarding the French.—Some curious statistics have just been published with respect to the population in France. It appears that the females numbered 18,741,037, and the males 18,645,276, forming altogether 9,054,030 families. There exist 5,009,120 boys under age, and 6,106,321 girls. Of 8,579,046 unmarried persons, there are 4,479,850 females. There are 931,023 widowers, and 1,790,126 widows. Of the widowers 81 are twenty years of age, and there are 820 widows of the same age. France possesses at this moment 1,529,154 girls of from 15 to 20 years of age, and 1,308,366 boys of the same age. The greatest examples of longevity are supplied by females. We find three females out of four unmarried persons who have reached the age of 105, and two widows who have passed that age. 17,371 French men, and only 13,409 French women have lost their sight; 12,447 French men, and only 9,509 French women are deaf and dumb; 22,319 French women have become insane, and only 2,372 French men. (?) There are 23,407 male idiots, and only 18,118 female idiots. The female sex prevails in France, while it has constantly decreased in the city of Vienna, since the year 1830, in the proportion of three-hundredths every six years.

PROGRESS OF THE CHOLERA.

In Europe, the situation, although not exactly satisfactory, is far from being on the whole discouraging. According to advices from Vienna, the cholera is making sad ravages among the wounded soldiers

there, and has likewise visited Brunn, Pesth, and Nikolsburg.

In Stettin, up to June 22d, there had been 792 cases, of which 437 had died, 97 recovered, and 258 were still under treatment. The record on that day was 30 new cases and 20 deaths. From July 2d to 3d, noon, 84 cases, 47 deaths; July 3d to 4th, noon, 77 cases, 53 deaths—these independent of the military cases; July 4th to 5th, noon, 108 cases, 54 deaths; 5th to 6th, noon, 161 cases, 63 deaths; 7th to 8th, noon, 134 cases, 57 deaths; 8th to 9th, noon, 152 cases, 57 deaths. From June 22d, noon, to July 7th, noon, there had been 687 new cases, 390 deaths; but 15 cured, and 282 remaining under treatment. Dr. Güterbock, attending physician in one of the cholera hospitals, gave with constant satisfaction to allay the cramps of the muscles twenty drops of a solution of chlorate of morphine grs. ij. to the f 3 j. of water, with the result of reducing the pain sometimes immediately, or generally within a short period. It had also in some instances controlled the vomiting.

July 28th the cholera is reported as about the same in virulence and fatality. All along the Oder there are several places attacked with cholera.

In Cammin, in Pommern, from May 30th to June 21st, there had been attacked 300, with 82 deaths. In Arnswald, a place of 6,500 inhabitants, 447 cases and 207 deaths.

In St. Petersburg, from June 26th to July 15th, there were 87 cases; and since then in 14 days there had been 1,084 cases, and 340 deaths.

In Berlin, from June 30th to July 1st, noon, 14 cases, 6 deaths; July 1st to 2d, noon, 39 cases, 15 deaths; July 2d to 3d, noon, 64 cases, 15 deaths; in all to June 30th, 193 cases, 79 deaths, 2 recovered, and 48 under treatment.

Collapse occurred early; champagne was given freely, and seemed to excite the skin and raise the pulse. Under the hot-bath many died; and of those who did not die under the bath the prognosis was unfavorable. In all, up to July 11th, noon, there had been 1,286 cases, 744 deaths, 56 cured, 486 remaining under treatment. From July 11th to July 12th, noon, 144 cases, 51 deaths; 13th to 14th, noon, 178 cases, 65 deaths; 14th to 15th, noon, 116 cases, 32 deaths; 15th to 16th, noon, 183 cases 57 deaths; 16th to 17th, noon, 223 cases, 67 deaths. In hospital No. 1 there were 283 cases, 61 cures, 141 deaths, 81 remaining in hospital. No. 2, within ten days, 263 cases, 130 deaths, 29 cures, 104 remaining.

From July 17th to 18th, noon, new cases 174, and 52 deaths; 18th to 19th, noon, 217 cases, 67 deaths; 19th to 20th, noon, 208 cases, 63 deaths; 20th to 21st, noon, 227 cases, 81 deaths; 21st to 22d, noon, 156 cases, 69 deaths; 22d to 23d, noon, 227 cases, 74 deaths. Up to this time there have been 3,504 cases, 327 cures, 1,765 deaths, and 1,412 still under treatment. At that day in cholera hospital No. 1 were 73 sick; No. 2, 121; No. 3, 63.

The mortality in Berlin seems to be due to an unfortunate monopoly by which a single undertaker not only buries all the cholera patients, but buries them from the same place, in consequence of which there are always a number of cholera corpses accumulating, awaiting their turn for interment.—*Deutsche Klinik.*

Owing to the governmental policy of suppressing all information regarding the epidemic at Paris, but little is known of its progress, although the estimate that the number of cases range from fifty to one hundred *per diem*, and this out of a population of two millions, cannot be very far from correct. In ten days after the first appearance, this epidemic reached its maximum of intensity, as evidenced by its mortality bill of 150 in the twenty-four hours. Amiens, Antwerp, and Marseilles have already begun to emerge from the darkness of their visitation; and England also appears to be getting the pestilence well in hand, but does not yet seem disposed to count upon a speedy close of the campaign. London, with a population of over 3,000,000, has, it is conceded, suffered severely in the swarming maritime districts of Stepney, St. George's in the East, White Chapel, and Poplar, all on the north side of the river, and at the east end of the metropolis. The sanitary condition of this region is described as most deplorable. The streets are narrow, the alleys unlighted, "the pump and cesspool in ghastly partnership," and in one parish, having a population of 11,000, only one family employs a cook. The London Hospital, a vast and magnificent institution, like the Hotel Dieu of Paris, only not supported by government funds, under the rough trial to which it has been subjected, has shown, says the *London News*, "a power of expansion and capacity for usefulness which is really marvellous. Notwithstanding the demands upon its space which its position in the centre of a densely crowded and poor population, and its proximity to the docks, always necessitates, it has managed to receive and provide in the best possible manner for about four hundred cases of cholera, which have been received within its walls during the last three weeks."

In the United States, as far as the localities on and near the Atlantic seaboard are concerned, we may pronounce the pestilence subjugated wherever it has fairly manifested itself. This is preëminently true of New York city, where every known sanitary expedient has been employed for the crushing out of the epidemic on the occasion of each and every onset. The number of cases is daily decreasing, and the mortality has become proportionally insignificant. Even the non-professional intercourse with the public institutions has been resumed, with the single exception of the Lunatic Asylum, in which an occasional death is reported at irregular intervals. Brooklyn, too, with a total disappearance of the scourge in her penal institutions, and the exhibition of a better hospital record, is concentrating her energies upon sporadic cases in the outskirts and the densely populated wards. Hoboken, Jersey City, and Newark still contribute victims, but in no very large numbers, while the absence of any intelligence from Tybee Island and Savannah may be construed into negative testimony in favor of an improved condition. Philadelphia is also showing an abatement in her visitation, which at no time has been very severe.

Turning to the Mississippi valley, we find that St. Louis has been the heaviest loser in the South-west, having already published a death list approaching in round numbers nearly 2,500 as the result of a month's prevalence of the epidemic in a very virulent form. We have, however, an unconfirmed report that at present it exists only sporadically in the Third, Fourth, and Sixth Wards. The decrease in Cincinnati and New Orleans is counterbalanced by a fresh impetus to its force at Memphis, and an importation at Leavenworth (Kansas). In Louisville, Ky., the disease just now seems keeping its bounds, while into Mobile, despite the establishment of a fifteen days' quarantine on all New Orleans vessels, the scourge has somehow been smuggled. From the North-west we have nothing very definite, except from Chicago, where the mortality scale, though somewhat inconstant, has never registered a very high figure. Upon the whole, wherever an outbreak has been met by vigorous sanitary measures—and such seems to have been almost universally the rule—their power over the disease has been both acknowledged and felt.

Original Communications.

TREATMENT OF FISTULA IN ANO BY COMPRESSED SPONGE.

By R. B. BROWNELL, M.D.,

LATE HOUSE SURGEON TO BELLEVUE HOSPITAL.

For the purposes of this article a few words concerning the pathology of fistula in ano will suffice. We have to do with cure, not causation; with what it is, rather than with what produced it. To all intents we may call it simply a chronic abscess, commencing in the same manner, following the same laws of development, and becoming subject to the same means of cure, that this disease does in any part of the body. Its shape may differ with each case; it may be a simple sinus; it may have destroyed more tissue and left a pouch; it may open externally, internally, or both; but, whatever may be the shape, it will be found to bear all the characteristics of a chronic abscess. It is ushered in by all the symptoms of the acute disease; it passes through all the stages of ordinary abscesses; and it is only after being evacuated that it exhibits its tendency to become chronic and assume its peculiar form. Then, we must inquire into, not the causes of the disease, but the reason of its not healing, the indications for cure, and the measures to be adopted to fulfil the indications.

There is but one cause why this acute disease should never, or rarely, heal itself. This is its position. Situated as it is in the ischio-rectal fossa, a pyramidal cavity between the lower extremity of the rectum and the ischium, it has ample room to be developed. The tissue there found is loose adipose, and readily broken down when the inflammatory material of the abscess is deposited. When the abscess has been evacuated, the whole of this fossa is involved in the cavity. That the internal surface of this cavity is in a favorable condition to heal at that time, no one will deny. It is coated with lymph, which, in all cases, when carefully protected, becomes quickly organized; it only requires that the opposing walls of the evacuated abscess should be brought into contact. It has, however, the tendency of all abscesses to become chronic if the air is admitted and the parts are kept asunder. Obviously, then, there must be some prevalent reason why an abscess in this region has this tendency to chronicity constant, and why its healing in the acute stage is a rarity in surgery. We find a reason readily, namely, the anatomy of the parts. To the inner wall, which has a capacity of lateral motion of an inch at least, a powerful muscle is attached, whose continued exertions are always effecting an entire separation of its surface from that of its *vis-à-vis*. The air is at once admitted (and this must always be the case); and in consequence of its size as a cavity the opportunity is lost for primary union of the parts. The surface is covered with granulations, continually irritated by the discharges from the rectum. The cavity, at first round, becomes narrowed by addition to the ischial side and subsequent contraction, until after a few weeks or months it presents the characteristics of a simple sinus, with a firm, almost cicatricial surface, which continues to discharge a thin serous pus. It is then a fistula in ano, and in this condition it comes under the surgeon's notice. It has long since assumed the type of chronicity, and is in the worst possible condition for treatment as a chronic abscess, even were it not in this position. Now, what are the indications for treatment? Certainly (and simply) to paralyse the muscle that is doing the mischief, and approximate the walls of the sinus. The various methods now in use for effecting this result are entirely familiar to all surgeons; and I wish to add the one to be described as new to me, which in theory, and as yet in practice, seems to perfectly meet the indications. This is to insert a sponge compress *into the anus*, which by subsequent expansion may exert an equable, steady, tender pressure outwards, paralysing the sphincters, and, serving the same purpose for which we apply compression in other chronic abscesses, cause the parts to commence healing directly. The following typical cases are reported to show the result of this treatment, and the first is given in detail to develop the course to be followed in all.

COMPLETE FISTULA OF LONG STANDING.

Case I.—Peter Duffy, æt. 39, a laborer, was admitted to Bellevue Hospital, April 13, 1864, with fistula in ano. He gave me the following history: Fifteen months before admission a deep-seated abscess formed on the right side of the rectum, which, from his description, followed the usual course. It was of slow development, with deep, intense pain, finally discharging itself by two openings on the same side of the anus. His general health had been good. On examination I found the two openings about an inch from the anus, and half an inch apart. They were discharging profusely an offensive, thin pus. On introducing the probe five distinct sinuses were found passing in as many directions; two of which, one anterior and one posterior to the rectum, passed above the internal sphincter, and opened into the rectum very far up from the anus. The rectum seemed to be completely dissected loose, so that a probe would sweep its entire periphery. One of the sinuses could be traced over into the left natis, into which the probe passed its entire length. Small pockets had formed in all the loose areolar tissue of the right natis, and the integument around the anus, and covering the perineum, was blue, and looked little like healing. The case was an unpromising one for treatment according to our usual method. So great had been the patient's suffering and discharge that he was emaciated and bedridden, without strength or spirits. My friend and visiting surgeon, Dr. Stephen Smith, then in charge of the wards, kindly gave the patient to my esteemed house surgeon, Dr. Wyckoff, for treatment by the use of sponge compresses, as I had proposed it to him some time previously. His general condition was so bad that he was put upon tonics and stimulants for a week after admission.

The remainder of the case I copy from my case-book.

April 23.—To prevent any escape of fæcal matter into the sinuses, his intestines are to-day cleared by a purgative, and opium ordered in doses of one grain three times a day.

25th.—Introduced to-day a compressed sponge into the anus, of sufficient length to engage both sphincters, and when expanded press upon the rectum above.

(Note.—Before the sponge was compressed it was conical in shape, of firm texture, three inches in length, and one inch and a half in breadth. It was wet, and in this condition wound firmly with twine and laid away to become dry. After twenty-four hours it was unwound, preserving its shape, was of uniform size, and about as large as the middle finger; when well covered with cerate, it was readily introduced, and expanded quickly.)

25th (continued).—The only sensation the patient experiences is the desire to expel it. This impulse is so uncontrollable that a T-bandage is required to retain it. It has remained four hours.

May 1.—The compresses have been kept in the patient's anus four hours daily. He remained in bed at

that time, but during the remainder of the day has been allowed to be about the hospital grounds. His sphincters are completely relaxed, and he now wears the compresses without inconvenience. Their first effect was to paralyse the muscles; secondly, to excite sufficient local inflammation in the surrounding tissue to cause a discharge of healthy pus about the third day, and give a notable general febrile movement; lastly, to so far approximate the walls of the sinus that it was impossible to introduce the probe during their presence. The fistula has as yet only assumed a healthier aspect.

Passing over the record of daily progress, on the 26th of May he developed fever, which was then raging in the hospital, and, as his premonitory symptoms were present a week before, treatment was ordered to be stopped on the 20th. To-day Dr. Wyckoff transferred him to the fever-wards. The report of that day is: "His fistula is healing slowly but surely. The sinuses are contracted; he passes no fæces or flatus."

June 13.—He returns to-day. Strange to say, while he has been sick (his attack was quite slight) his fistula continued to heal, and he pronounces himself well. On examination I find no discharge, but one of the mouths still remains open. The integument has assumed a healthy look, and over the tracks of the sinuses there is a contracted cicatricial appearance. He is still very weak, and he will be sent home to report again.

August 1.—Peter is to-day readmitted on account of a small discharge from one of the sinuses. He has had no pain at stool, no discharge of flatus, since the last report. The discharge is found to proceed from a small superficial sinus in the cellular tissue. The probe does not pass upwards at all. As far as the compresses are concerned they have effected a cure. I have touched the inner surface of the discharging sinus with nitrate of silver, and applied a little compression with adhesive plaster, and sent him away.

In November he returned to report, looking hearty and rugged. His fistula was entirely well, and he had continued at his work as a laborer since the last entry in August. I have been tediously minute in the history of this case, because it comprises all the details necessary for the proper treatment of every case. The time actually employed in the use of the compresses was about one month. In a case of complete fistula, treated in the same manner, about this time, in the person of a business man, the sponges were applied only at night, as he was required at his place of business during the day. He experienced no inconvenience from them, and was entirely well in the third week, no fæces or flatus passing after the first five days.

INCOMPLETE FISTULA.

Case II.—James Eager, æt. 35, was admitted to Bellevue Hospital, July 6, 1864. He had been suffering with incomplete fistula in ano for eight months. The usual history attended it, and he has continually experienced great pain and prostration of strength; the discharge was thin and offensive.

July 10.—On examination I find that there is but one sinus, which meets the finger above both sphincters, but does not pass through the intestine. Commenced with the compresses to-day.

27th.—The result has been the same as in the first case—slight febrile movement about the third day, paralysis of the sphincters, etc. I ordered him to retain the compresses three hours daily; the remainder of the day he was employed as clerk in the hospital office. The treatment was followed by immediate and steady improvement; he is now entirely well. Though ready for discharge he will be employed about the hospital to keep him under observation.

August 23.—Discharged, without any return of the fistula.

Case III.—Through the kindness of my friend, Dr. Piffard, late House Surgeon to Bellevue Hospital, I am permitted to give the history of a case to which the same treatment was applied most successfully, as illustrating the advantage of the compresses in cases of recent fistula.

Y. S., æt. 45, admitted to Bellevue Hospital, June 3, 1865, with ischio-rectal abscess on the left side; it was found ready to open. Free incision was made immediately, and the abscess completely discharged. No opening was found into the rectum. Tonics were given, and cleanliness enjoined. At the end of six weeks, in which no other treatment was used, he presented himself with fistula, showing no tendency to heal. No fæces or flatus passed; the probe passed above both sphincters, but did not enter the rectum.

Treatment by compresses was commenced July 15. No attention was given to the condition of the bowels, except to have them regularly moved. There was no irritation at all, so that the compress was kept applied night and day. At the end of seven days the fistula was healed, and, though the patient remained about the hospital three weeks without treatment, he was discharged perfectly well.

Without detailing any more cases, I will add a few remarks concerning the treatment. In the first case it will be remembered that there was a tendency, so irresistible as to be beyond the control of the patient, to expel the compress, as if, as he expressed it, "he was having a passage." When the compress was secured, however, the efforts to expel were of great service, as the sphincters became the more readily exhausted and completely relaxed. This will not happen except in very irritable cases. I have not in any case seen it treated since. It will cause no trouble to the surgeon, I think.

Secondly, there was considerable constitutional excitement on the third day in the two first cases, but not in the third. At this time the face was flushed, the head and back ached, and there was quite a sensible acceleration of the pulse. Coincidently the discharge of healthy pus commenced, showing that the irritation was the result of breaking up the tissues inside the fistula, which in those cases had become hard and cicatricial. The withdrawal of the sponge for the day was all that was necessary to calm the irritation, and the treatment was continued the next day.

Thirdly, where there are such extensive sinuses in the cellular tissue of the natis and surrounding parts, obviously it will be necessary, as the treatment progresses, to apply ordinary compression, as in the cure of any chronic abscess.

Fourthly, in cases where the fistula is incomplete, no attention need be paid to the bowels, except to move them freely by injection. A valuable suggestion to avoid confining the bowels in any case, made to me by my good friend, Dr. Elisha Sterling, of Cleveland, is to introduce a bivalve speculum at the time of the passage, washing the rectum afterwards, before the withdrawal of the speculum.

Dr. Sterling succeeded in the speedy cure of a recent fistula by this means, without any other procedure. In two cases of complete fistula not reported the opening into the rectum was the first thing to heal, and that in a few days.

Lastly, by the report of Dr. Piffard's case it will be seen that if this treatment is applied as soon as the abscess is discharged the cure must be immediate. It is a common thing in Bellevue Hospital to heal acute abscesses by direct compression in two days after evacuation. Why, then, can we not always in the same

manner heal an ischio-rectal abscess during the acute stage, thus avoiding a fistula in ano? That it would be less painful is certain, for nothing is more grateful than sponge compression to an evacuated abscess. I should be glad to know that it has been successful in the hands of other surgeons in the prevention of fistula in ano.

Whether the treatment is new I know not; to me it was entirely so, and I cannot find it even alluded to in any work on operative surgery.

Steamship Arago, August 17, 1866.

LARYNGOSCOPY.

By J. SOLIS COHEN, M.D.,

of Philadelphia.

No. III.

The manner of introducing the laryngeal mirror is a subject which demands considerable attention; and it is necessary to refer to the importance of learning to introduce the mirror with either hand, which facility becomes sometimes requisite before a correct image of certain parts can be obtained, while in the application of instruments under sight the necessity for ambidexterity is sufficiently obvious.

The stem of the mirror should be held in the hand as though it were a pen, lightly between the thumb and fore and second fingers, the wrist well extended, the mirror pointing upwards, with its reflecting surface horizontal and looking downwards. The patient breathing deeply but quietly, it should be passed during inspiration into the mouth in this position, well above the tongue, and carried back until the uvula is reached, when, receiving the uvula on the back of the mirror, the uvula and soft palate are pushed backwards and somewhat upwards, by a simple flexion of the wrist, and the mirror is landed on the posterior wall of the pharynx. Many writers have laid a great deal of stress upon the necessity for avoiding contact with the pharynx, and many recommend that the mirror should be held, as it were, in mid space, without touching any of the structures, and the hand then to be steadied by resting one or two of the disengaged fingers on the patient's lower jaw. The introduction of the mirror in the manner described and the landing it in position by a flexion of the wrist, instead of the usual attempt to place it in position before entrance, and to carry it over the tongue with its face forwards, will in great measure insure avoidance of contact with the back part of the tongue; an occurrence much more likely to ensue in the other method, and almost certain to provoke retching and other reflex movements, which will smear the face of the mirror and cause other annoyance. The attempt to avoid touching the pharynx will be found difficult of success, and the very circumstance of making such effort, more especially if combined at the same time with an attempt to steer clear of the pillars of the fauces, will of itself create an uncertainty of movement in the hand; and this movement will be, of course, much exaggerated at the extremity of the lever, and result in a teasing or tickling of the parts, which uncertain manipulation will be much less easily borne than touching the parts decidedly. The instrument should be introduced with a firm hand and decided movement, and when landed at the back part of the pharynx held there. The pharynx is often exceedingly sensitive, and in these cases the patient will experience an unpleasant sensation from the presence of the mirror, which will probably feel as though it were some sharp substance, splinter-like, perhaps, wedged across the throat, and there will be some reflex disturbance, in most cases controllable, but often producing slight spasmodic motion of the parts, and not unfrequently proceeding to gagging or coughing.

It will be found a good rule in practice to keep the mirror in position for a moment after its first introduction, despite the excessive disturbance. Its withdrawal but necessitates a fresh introduction, when similar reflex movements will commence before the mirror will have passed the teeth, rendering its introduction, if at all possible, a matter demanding much ingenuity on the part of the operator. Being retained at the back part of the throat during the momentary fit of gagging or coughing, the patient recognises at once the harmlessness of the operation, overcomes agitation, becomes inspired with fresh confidence from the assurance of the operator in retaining quiet mastery over the position, and soon again breathes calmly and regularly, enabling the examination to be proceeded with.

The sensitiveness of the pharynx, as well as that of the uvula and other structures, is overcome more thoroughly and permanently by a firm pressure of the instrument, though of course a gentle one, than by the uncertain or intermittent contact of nervous manipulation; besides which, the support given to the mirror at the posterior wall of the pharynx renders it unnecessary to steady the hand upon the jaw of the patient. It will, of course, be necessary to turn the mirror on its axis, or a little towards one side or the other, or to move it bodily from one side to the other, or to raise or lower it, or otherwise alter its inclination and position, in order to bring different structures into view; and this movement should not be effected too hurriedly, as a quiet motion will be more easily arrested at the desired instant.

The mirror should not be retained in position more than a minute or two at a time, as slight congestion may result and complicate diagnosis. Sometimes many separate introductions become necessary before an examination can be completed.

Before introducing the mirror it will be well to look into the open mouth by the aid of the reflector, to obtain a general idea as to the symmetry of the parts and their contour, so as to be enabled to form some judgment as to the best size and angle of mirror to be employed, the arrangement of the patient's position, and other little details which will facilitate the exploration.

There are several obstacles to a satisfactory introduction of the mirror.

In the first place, there may be on the part of the patient *an inability to open the mouth properly*, which occurs much more frequently than would ordinarily be imagined. In these cases a mouth-distender or cheek-retractor may become necessary, or a glass speculum may be placed in the mouth to hold it open and the laryngeal mirror be introduced through that (Watson); or a mouth-keeper or distender may be attached to a tongue-depressor (Elsberg). The writer finds a desirable instrument for this purpose, and especially in the examination of children, in the ordinary mouth-distender of the dentist. This consists of a grooved horse-shoe arrangement of hard wood or vulcanized rubber, inserted into the angle of the mouth between the internal surface of the cheek and the teeth, and having on its inner face a central spool of gutta-percha for the patient to bite on, and thus support the jaws. When the inability to open the month is dependent on congenital or traumatic deformity, other means suited to the nature of the case will have to be devised, when practicable, to suit the particular indication.

The management of the tongue is often a matter of great difficulty. Few persons know how to control this organ during its ordinary employments, and it frequently becomes an unruly member at the commence-

ment of a laryngoscopal examination. The position of the tongue most favorable for an examination of this kind will be when it is moderately protruded in a horizontal direction by the action of its own muscles, with its body lying quietly upon the floor of the mouth, and its base considerably hollowed. It is not often that an individual can maintain this position of the tongue without some practice, as any one can readily satisfy himself by making the attempt before a looking-glass; but the power is readily acquired, and it will be found exceedingly useful to recommend patients to teach themselves how to control this organ by frequent practice before a mirror.

The tongue often rises up involuntarily as soon as any foreign body passes the teeth, and may rise sufficiently to carry the mirror against the roof of the mouth, pressing it there sometimes with considerable muscular force. It is necessary that the base of the tongue should be directed forwards and downwards, so that the tension on the glotto-epiglottic ligament should raise the epiglottis and permit the light to be reflected from the mirror in the pharynx into the laryngeal aperture. It is an excellent plan to instruct the patient to hollow out his tongue at the base, and thrust it forcibly forwards out of the mouth, when, if he cannot retain it in this position, it may be held by the thumb and fingers of the operator's disengaged hand, guarded by a glove or napkin (Störk), or preferably by the fingers of the patient himself. The fingers should be applied above and the thumb below, and the patient use the right hand when the operator intends to use his own right hand to hold the laryngeal mirror, and *vice versâ*. This will keep the fingers out of the way. The tongue should be held straight and not pulled downwards, as in the latter instance it will be more difficult to maintain the desired concavity, and there is risk of injury to the frenum from pressure upon the inferior incisor-teeth. If there be difficulty in accomplishing this manœuvre, let the patient protrude his tongue moderately and keep it as steady as he can. It will only require a little more skill in manipulation on the part of the operator.

The writer objects to all artificial contrivances for the purpose of holding the tongue down, and resorts to tongue-depressors very reluctantly. The examination is much more satisfactory the fewer the appliances that are employed, and the attempt should always be made to do without them. Forceps, with which to hold the protruded tongue, whether designed to be supported by the hand or to drag the tongue forward by their weight, cannot be too strongly condemned. They are powerful levers, and liable not only to injure the delicate frenum, but to cause unnecessary injury to the tip of the tongue, where the compression must be considerable to secure a firm hold.

If the tongue is very fleshy, or merely restless, or rises up too much in the centre, it may be pressed down by the finger or the handle of a pen, a large knitting-needle, or some similar simple instrument. Sometimes a spatula or tongue-depressor becomes necessary. The ordinary tongue-spatula is wholly inapplicable, for it depresses the anterior portion of the tongue only, by which very movement it forces the base backwards, pushing the epiglottis over the laryngeal aperture, so as to cover it wholly or in part, and causes the back part of the tongue to rise above the level of the spatula, thereby inducing the very condition of things desired to be avoided by its employment. A fenestrated spatula is inadmissible, because the portion of the tongue encircled by the fenestrum rises above the plane of the spatula and intercepts the view. Various forms of spatulæ have been constructed. The Petit-Simpson spatula hollow like a spoon, ribbed on its lingual surface and considerably arched, and applied at a right angle, is much used by Czermak, Semeleder, and others. Dr. Church, of New York, has devised a spatula, attached by ratchet and screw to a grooved plate for the reception of the lower jaw.

Von Bruns employed a spatula attached to a perpendicular plate, intended to go in front of the lower jaw, and be retained in position by being bent at a right angle so as to catch under the chin, and thus remain in position without manual assistance. *Dr. Elsberg*, of New York, has devised a tongue-depressor, to which a mouth-keeper can be attached when desired, either to keep the mouth open, or to furnish an attachment by which to keep the laryngeal mirror in position during an operation. It consists of "a somewhat ladle-handle-shaped, curved metallic blade, six and a half inches long, on its lower surface a little hollowed out laterally and roughened, with a handle of three and a half inches, partly of metal and partly of hard rubber, attached at right angles." A narrow slit in the blade permits a button to slide, carrying a strip of metal, to which upright wires can be attached, forming the mouth-piece. A little fork attached to one of the upright wires will hold the handle of a mirror, palate-hook, or other instrument.

The writer employs a very simple instrument which answers every indication. It is constructed of hard rubber, a material easily cleansed, not reflecting light, and capable, by holding it over a flame, of being bent or moulded so as to suit any peculiar conformation of tongue; and its shape can thus be readily altered at will. The tongue portion is five inches in length, curves gently forwards, and is considerably bent at its terminal extremity, so as to embrace the posterior portion of the tongue by means of a shallow depression about an inch in length, scooped out of its lingual surface at this portion, thus affording a sufficiently firm hold upon the organ. The handle, which is of one piece with the blade, is bent to an angle of 70°, so that it bends in towards the neck when the spatula is applied, and the hand holding it can be kept out of the way; while, by bringing the handle forwards towards the perpendicular, the base of the tongue is necessarily pressed downwards and drawn forwards, elevating the epiglottis, and securing a favorable position for successful examination. This instrument, frequently introduced by the patient at home, will assist greatly in blunting preternatural or even ordinary sensibility of the base of the tongue. With a properly formed spatula well applied, it will be no unusual occurrence to see distinctly the anterior or lingual surface of the epiglottis, with perhaps a portion of its crest, the glotto-epiglottic fold, and the lingual sinuses at either side. Whether the tongue be held by the fingers or by a spatula, it will be found advantageous to entrust the patient himself with its management. It will enable the operator to reserve his disengaged hand free for other purposes; and, occupying the attention of the patient, will call his mind off somewhat from the back part of his throat, thus rendering him less susceptible to the effects of reflex action. As mentioned previously, it is better to get along without holding the tongue by any contrivance, especially during the performance of an operation; and this can be accomplished through perseverance in every case if time permits. After a little practice, the patient will learn to hold his tongue in the desired position; and as contact with its base can be avoided in the introduction of the mirror, by the motion of flexing the wrist, as already described, the tongue-spatula can, as a general rule, be dispensed with.

Irritability of the fauces is another obstacle that is occasionally presented, though it forms by no means the

formidable obstacle so frequently represented. The writer is convinced by his own experience that much difficulty is attributed to irritability of the fauces which really results from want of skill or want of patience on the part of the examiner. But sometimes there is considerable irritability, and occasionally to a great degree. It may often be overcome by explaining its nature to the patient in advance, and telling him that he must exercise his will to control it. If this does not suffice, touching the parts with the mirror or with a cold steel instrument will often succeed. Astringent solutions may be applied locally. Various articles have been recommended for this purpose. Huette, Rames, Riemschlagh, and others speak very highly of small doses (½ gr.) of the bromide of potassium every hour; but this involves too much delay sometimes, and the plan has not met with similar success under the directions of other observers. Gargles of bromide of potassium, gargles of bromide of ammonium (Gibb), alum, tannin, etc., have been employed, and with varying success. Türck recommends very highly the following mixture: *Morph. sulph., grs. iij.; acid. acet. concent., f℥j.; chloroform, f℥ss.* Dr. Elsberg states that he tried it in one case, but that it produced so much inflammation that he was deterred from resorting to it again. Tobold recommends with justice the local application of a solution of alum broken into spray, after the manner of Sales-Girons. A nebulized solution of tannin will be found very satisfactory. Semeleder reports good results from the local application of a solution of chloroform and morphia. Gibb has employed with success the inhalation of from fifteen to twenty drops of chloroform. Mackenzie speaks very favorably of small pieces of ice held in the mouth for ten or fifteen minutes and allowed to dissolve slowly. Watson recommends swabbing the parts with a solution of nitrate of silver, *twenty grains to the ounce*, as "a powerful agent to control this irritability!"

The writer believes that this irritability of tongue and fauces is in the main due to indigestion, *and often attendant upon the act of digestion itself*, and has in consequence adopted the simple method of making his examinations some hours after the patient has taken a meal, which plan he has found to answer the purpose in a large majority of cases; and where there coexists marked disorder of the digestive apparatus, a purge is administered the night previous, with the effect of considerably lessening the irritability. The application of ether to the fauces by swabbing or by nebulization produces an unpleasant taste, and does not induce the local anæsthetic effect produced on exterior tissues, from want of evaporating surface exposed to air; nor does this anæsthetic effect follow the local application of the spray of rhigolene, in consequence of the high temperature of the parts. A new agent, chimogene, has not yet been tried. The external application of these local anæsthetics upon the skin covering the larynx will sometimes accomplish the purpose, if no ill effect be dreaded from the excessive frigeration necessarily produced. For purposes of immediate examination, the chloroformization of Gibb is the most satisfactory and ready method.

Enlargement of the tonsil glands may complicate the examination and render the employment of oval mirrors necessary. The patient being directed to take a deep inspiration, the tonsils may become sufficiently separated to permit a small mirror to be passed or shoved between and behind them, and although in resuming their position they may cover the sides of the mirror, sufficient reflecting surface may remain exposed to permit a more or less satisfactory examination. If the tonsils are so much enlarged as to preclude the introduction of the mirror, it will be necessary to interfere surgically.

An elongated uvula may prove a source of difficulty. It can sometimes become retracted by the local application of an astringent solution, or by allowing a piece of catechu to dissolve at the base of the tongue, which, by the way, will sometimes overcome irritability of the fauces. If the elongation be not very great, titillation with the back of the mirror may induce sufficient contraction to allow of examination. If too long to permit retrenchment of its bulk by any of these methods, and it hangs so that its image, reflected in the mirror, cuts off that of other structures, its extremity must be clipped.

An unfavorable position of the epiglottis may interfere seriously with success in obtaining a favorable view of the laryngeal cavity. Connected intimately with the root of the tongue by strong ligamentous attachments, it participates in the movements of that organ, and ordinarily, when the tongue is in a state of rest, overlooks the upper aperture of the larynx. Very often, however, there is an unusual degree of backward deflection, so that it conceals the entrance into the larynx. This condition is sometimes congenital, but more frequently acquired. Base singers, clergymen much given to pathetic rhetoric, who warn their congregations of the dangers of hell-fire, and indulge in habitual solemnity of intonation, and persons who adopt the muffled tone of voice, acquire this position of the epiglottis as a consequence of the muscular effort necessary to produce these deep tones, which finally overpowers the antagonizing muscles to such a degree that the epiglottis retains this acquired deflection, and the affected tone of voice becomes habitual.

In order that the epiglottis should be raised clear of the laryngeal opening, it is necessary that the base of the tongue be forcibly extended forwards, and at the same time pressed downwards; this will put on the stretch the glotto-epiglottic ligament, and raise the valve. The spatula recommended by the writer will often effect this, by merely advancing the handle, which depresses the terminal extremity of the instrument, and at the same time directs it forwards. The spatula of Elsberg and others, which reaches the base of the tongue, will do the same, when the epiglottis is not sufficiently raised, and there is no abnormal condition. A high *a* (as in *may*) sound, made by the patient during the examination, will raise the valve mechanically; and this can be repeated until the examination has been satisfactory. Sometimes a sudden, strong inspiration will produce the effect momentarily.

Various instruments have been devised for the purpose of drawing the epiglottis forwards during an examination; such as properly curved hooks, forceps, and pincettes. The best instrument in difficult cases is the epiglottic pincette of Von Bruns.

This is a forceps, one blade of which is furnished with a small sharp point, which, piercing the cartilage, is received into a small socket on the opposite blade, so that the instrument retains a firm hold, and does not tear out as it might without the socket. This instrument in most cases produces only a momentary pain, like the prick of a needle, at the time of application, and is usually well borne; but occasionally patients will be encountered who cannot endure its application. For ordinary cases of depressed epiglottis, the writer uses the extension thimble employed by the dentists for retaining gold leaf in position while operating on a back tooth, which is an ordinarily shaped thimble, of silver or hard rubber, fitting the fore-finger, and terminating in a prolongation, properly curved and furnished with a blunt hook, which easily gets behind the

epiglottis and draws it forwards. The writer has also had the thimble furnished with a female screw, and screws on to it his probe, caustic-holder, probang, brush, lance, etc., as will be more fully explained in treating of operations within the larynx; and he finds it easier in many instances to touch a desired spot in this way, with the finger as it were, than with the longer leverage of the instruments usually employed for laryngeal purposes. Lewin, of Berlin, has devised a thimble, or sort of prolongation of the fore-finger, for drawing forwards the epiglottis, which does not differ materially from the dentist's thimble in common use in this country, and which the writer has adopted as above mentioned. The staff of Voltolini is also much employed for this purpose.

Very frequently the parts must be educated to bear the contact of these various instruments, which sometimes produce as much reflex action as touching the base of the tongue; and the extension thimble or some equivalent can be given the patient, that he may practise at home, pulling his epiglottis forwards. Placing his own finger far back, and touching the epiglottis in this way frequently, will subserve a similar purpose.

The patient's manner of breathing sometimes presents an impediment to the examination. Female patients particularly, during a first interview, are very apt to breathe hurriedly and spasmodically. It is important that they breathe rather deeply, but at the same time quietly and regularly. Hurried and irregular respiration may sometimes be overcome by teaching them to follow one's own manner before introducing any instrument within the mouth; accompanying the breathing at first with audible sound, gradually lessened as continued, and finally with a total cessation of vocalization; or time may be beat for them, or they may be made to breathe in consonance with the vibrations of a metronome.

(To be continued.)

CASE OF

EXTRAORDINARY SUPPRESSION OF URINE,

COMBINED WITH OBSTINATE CONSTIPATION,

BY NICHOLAS W. J. HEATH,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND, ETC.

Whilst making my usual morning visit to the steerage of the National Steam Navigation Company's steamship "*Erin*," outward bound to New York, with 700 passengers, my attention was directed to a female passenger, Mary Stines by name, aged 25 years. She had previously suffered from debility, superinduced by seasickness, and for which, on former occasions, having asked the usual hackneyed questions as regards bowels, stomach, head, etc., and having received satisfactory replies, prescribed the usual remedies in such cases—nutriment and stimulants. On this occasion such was not the case; it was a case pregnant with difficulty of diagnosis, requiring prompt and active measures to be immediately adopted.

I found her lying on her back clothed, nor do I believe she either undressed or went on deck twice in the passage so far, fifteen days from land, being too weak to attempt such an exertion; she appeared semi-comatose. I immediately had her undressed and placed in hospital; and I shall now give briefly the result of my examination of her, which, although I believe true, is scarcely credible.

On examining the lungs as well as the noise of engines would permit me, I could not detect any congestion or inflammatory symptoms; the heart was weak, though regular.

The abdomen, I observed, was considerably enlarged for an unmarried woman; and with careful external manipulation and a vaginal examination, I could satisfy myself of her pregnancy. The colon in all its parts could distinctly be traced; enlarged, nodulated, distended with scybala.

The bladder, containing fluid, could easily be mapped out. I asked her how long she had retained her urine; and with a good deal of apparent exertion to comprehend and difficulty to reply, completely astounded me when she said, to use her own words: "I have not made water since the day we left Liverpool, and my bowels have not been freed since the day before we left Liverpool." The other passengers (twenty-three) in the same room, attested the truth of this appalling statement. Be it true or not, I cannot say; but such a train of symptoms and subsequent facts inclines me to the belief that she must have suffered from suppression of urine for a great length of time. The poor girl, evidently from modesty before so many people, would not attend to the calls of nature; and the parts becoming unnaturally distended, the condition I have described ensued.

I now immediately introduced the catheter without trouble, and drew off six ounces of horribly fœtid urine, something like porter in color, though of greater consistence, blackening the silver catheter. It is needless to go through the different steps of the treatment; suffice it to say, stimulants, nutriment, enemata (laxative), and diuretics were assiduously administered. Cupping over the region of the kidneys, etc., was resorted to, but with no avail. With difficulty the various remedies were continued; and about four A.M., the next day, the face assumed a strangely death-like appearance, of a leaden hue, cold, and covered with a clammy sweat; the lips drawn over the teeth, giving the face a ghastly grin; the alæ of the nose contracted, and up to this time only two and a half ounces of urine had been obtained by the catheter. The fæces passed involuntarily; abdomen very tympanitic; constant hiccough served to annoy her, and she was incoherent. With difficulty the stimulants were continued. She gradually sank, and at 7.45 P.M. (thirty-four hours after my first visit) died.

I made a post-mortem examination sixteen hours after death in conjunction with Dr. Lee, Sr., of Chicago, who kindly assisted me in the treatment of this strange case; and found first the brain, especially the cortical portion, extremely congested, and of a strong urinous odor, as also was her whole body when cut; lungs and heart healthy, the stomach contracted and inflamed on the inside; the remainder of the alimentary canal filled with gas. The kidneys were very large indeed, hard, and congested with blood; the bladder, contracted and inflamed on the inside, not containing a single drachm of urine; the uterus contained a five months' fœtus.

I regret deeply that I had no means of testing the urine, or microscopically examining the kidneys at sea.

In conclusion, I will mention that at sea, from my experience, which has been quite extensive, I have frequently seen constipation for twelve, fifteen, and even twenty days, without any evil results, or even inconvenience; but never have I even read, heard of, or seen a case parallel to the one I have now described.

111 Fourth Av., N. Y.

A Substitute for Food.—M. Rossi writes to the Roman *Corrispondenza Scientifica*, that by the use of the *Erythroxylon coca* of Peru men may live in robust health several days without food! M. Rossi declares that after taking a decoction of the leaves of the plant he felt neither hunger nor thirst for forty-eight hours.

ON THE TREATMENT OF PNEUMONIA.

By R. CRESSON STILES, M.D.,

CONSULTING PHYSICIAN TO KINGS CO. HOSPITAL.

The *post-mortem* examination of eighteen fatal cases of pneumonia which occurred in the Kings Co. Hospital, within the past eighteen months, yielded the following differences between the weight of the solidified lung and that of the healthy or simply congested, or œdematous or slightly tuberculous lung of the opposite side.

Hepatized Lung.	Sound Lung.
1.—3 lbs. 14 oz.	1 lb. 6 oz.
2.—1 lb. 11 oz.	14 oz.
3.—4 lbs. 2 oz.	1 lb. 8½ oz.
4.—4 lbs.	10½ oz.
5.—3 lbs.	1 lb. 4 oz.
6.—1 lb. 14 oz.	14½ oz.
7.—3 lbs. 2 oz.	14 oz.
8.—3 lbs. 11 oz.	1 lb. 13 oz.
9.—5 lbs. 11 oz.	1 lb. 8 oz.
10.—2 lbs. 9 oz.	2 lbs.
11.—2 lbs. 8 oz.	1 lb. 7 oz.
12.—4 lbs. 6½ oz.	1 lb. 4 oz.
13.—1 lb. 7½ oz.	13 oz.
14.—2 lbs. 8 oz.	15 oz.
15.—4 lbs. 10 oz.	1 lb. 6 oz.
16.—1 lb. 10 oz.	1 lb. 3 oz.
17.—4 lbs. 2 oz.	1 lb. 6 oz.
18.—2 lbs. 7 oz.	1 lb. ½ oz.

In these cases there is an average excess of two pounds in the weight of the solidified lung over that of the sound lung, due to the pneumonic exudation; in one case (the ninth) the weight of the exudation amounted to 4 lbs. 3 oz.; and in general it was proportional to the extent of pulmonary tissue solidified. The tenacity of the diseased tissue varied from an almost cartilaginous resistance to a near approach to diffluence.

In cases of pneumonia which recovered, in which the similarity of physical signs gave evidence of an amount of solidification equal to that of many of the fatal cases, there was either no expectoration, or the amount expectorated was but a fraction of the weight of the exudation. The exudation could therefore have been removed only by absorption.

A microscopic examination of most of the above-mentioned examples of hepatization proved the exudation to be not one of amorphous matter, nor of a liquid, nor of coagulable lymph, but mainly of the well known and well marked cells or corpuscles ascribed and figured by Bennett, Lebert, Da Costa, and others after them. In order, therefore, that a lung solidified by pneumonia should become again permeable to the air, and be restored to its normal levity and porosity, solid anatomical elements must degenerate, liquefy, and undergo absorption.

It is through a process of fatty degeneration that anatomical elements, which have served their purpose and are no longer needed, are removed from the system, as the muscular fibres of the uterus after parturition; and the same is true of pathological formations. Fatty degeneration of the elements formed in exudations produces the so-called exudation corpuscle or compound granule cell, which presents a great variety of form and size, according to the locality of the exudation, the crasis of the fluids, exposure to the atmosphere, etc. It is by such a degeneration that the absorption of solid tissue becomes possible, when not directly encroached upon by the growth of other anatomical elements.

The fact announced by Bennett in his "Clinical Lectures on Medicine," that the stage of grey hepatization is a necessary step in recovery from pneumonia, is one of the first importance to a correct understanding of this disease. The change from red to grey hepatization is due to a predominance in the latter stage of the degenerated elements of the preceding stage. Instead of pus being formed, as in an ordinary abscess, the degenerated granular elements are infiltrated into the pulmonary tissue in grey hepatization.

The treatment indicated by the pathology of pneumonia, as far as here presented, must have for its object to promote the absorption and elimination of the exudation. Should strength fail to accomplish these results death or chronic disease must ensue, and hence indications of failing strength must be met by supporting measures.

The administration of alkalies is favorable to the absorption of fatty matter, and in this class of remedies there is none which experience has pronounced more eminently useful in the treatment of inflammation of the lungs than ammonia in the form of the carbonate. Particularly favorable testimony to the therapeutic value of carbonate of ammonia in this disease is given by Professor Flint, although administered by him to fulfil other indications. This remedy is adapted to every stage of the disease; for, from a very early period of red hepatization, the microscope reveals, in the exudation, cells undergoing fatty degeneration.

A series of carefully conducted experiments on the physiological action of carbonate of ammonia, has led me to the conclusion that it possesses no stimulating influence other than its irritant action on the stomach. I have repeatedly administered drachm doses of the pure carbonate, sufficiently diluted, without the slightest influence upon the pulse. The alkali of the salt enters immediately into other and more stable combinations (as in the stomach, where, with hydrochloric acid, sal-ammoniac is formed), thus forfeiting its stimulating properties.

In the treatment of pneumonia it has been for some time my habit to direct the administration of drachm doses of a solution of the strength of a drachm of the carbonate to a fluid ounce of water every two or three hours. This treatment has been followed by most favorable results in shortening the period of recovery, and in ameliorating the most unpleasant symptoms. Many of my medical friends, who have given this plan a trial, also speak of it in very favorable terms.

SURGICAL CASES.

By EDWARD T. CASWELL, M.D.,

OF PROVIDENCE, RHODE ISLAND.

The three cases here reported seem to deserve a record from the fact that in such conditions recovery is exceedingly rare. Their fortunate issue is not, however, due to any special treatment.

OSTEO-MYELITIS.

A. J., residing in Crompton, aged about twenty-five years, was shot with a pistol in a quarrel on Christmas-day. The ball struck the popliteal artery of the left leg, occluding it, and giving rise to gangrene of the limb. One week after the accident the patient was seen by Dr. Miller, and the leg amputated above the knee. A fortnight after the operation we were again called to see him. The bone was found protruding from the soft parts about half an inch. Bony matter had been deposited upon the outer surface of the femur,

varying from one-quarter to three-eighths of an inch in thickness, and at one point a spine of bone, about three-quarters of an inch in length, stretched down into the soft parts. The medulla protruded from the medullary canal, presenting a fungoid appearance, apparently as large as a small bird's egg. There were also small isolated nodules of bone in the vicinity of the femur. The patient had become much emaciated, and his pulse was quick and feeble. After administering anæsthetics I removed about one inch and a half of the bone; as I sawed through the bone, a little creamy pus flowed from the cavity, and the medulla looked unhealthy, leading me to infer that the operation would be of no avail, and also to question the feasibility of removing another section, as I might not even then reach a point where the medulla was healthy. I contented myself, therefore, with removing the isolated nodules of bone, and applying ice-bags to the stump. The patient was placed upon tonic and stimulating treatment, and to my great surprise made a rapid recovery.

INFILTRATION OF URINE.

H. I., aged thirty years, had suffered from stricture for a year following gonorrhœa. Ten days previous to calling upon me, he had visited a surgeon, who had attempted several times to pass a metallic catheter of some size, and with each attempt, to use the patient's words, "blood had flowed pretty freely." When he came to me, he was suffering from retention of urine. I succeeded in passing a No. 1 elastic catheter, and drew off a pint and a half of water. Subsequent attempts were made with great gentleness to pass the *bougies à boule*, and I succeeded in using a No. 3 after several trials made within one or two days. The next day the patient complained of pain in the dorsum of the penis, and I postponed the introduction of the bougies. Shortly after, tumefaction became apparent, and subsequently fluctuation. An opening was, therefore, made upon the dorsum, and about a tablespoonful of urine escaped, to the great relief of the patient. An attempt was now made to pass a catheter, but was unsuccessful, probably from the fact that the existing inflammation had rendered the urethra tortuous in its course. The urine, however, continued to be discharged at the meatus as well as through the opening. The swelling still seemed to increase above the pubes, and a second opening was made at that point about three days afterwards, and a smaller quantity of urine escaped. When the patient passed water, none escaped through the second opening. It gradually ceased to flow through the first opening, and in the course of a week or ten days the opening was entirely closed, and the water passed through the natural channel only. He was kept in bed for a couple of weeks, placed upon tonic treatment, and in the course of a month had regained his former health. The stream of water which he passed was larger than previous to the first attempts at passing an instrument, and as it did not inconvenience him all operative interference was for the present postponed.

TRAUMATIC TRISMUS.

L. M., a railway engineer, ran the shank of a file into the palm of his right hand. The next morning it pained him severely, and he visited a surgeon, who, without opening the hand, removed a small scale of iron from the point where the shank of the file entered. In the afternoon of the same day the pain became intolerable, and by the advice of a friend he held the hand under a stream of cold water for half an hour, but without alleviating the pain. Towards evening he experienced pains in the angle of the jaw, and the bones became fixed at about six o'clock. Two hours after I saw him. He was then in bed, much excited, staring wildly around him, unable to speak, and apparently unable to guide the pencil placed in his hand. He understood all that was said to him, and would reply with nods. I found it impossible to introduce between the teeth the thin-edged handle of an old-fashioned silver spoon. I made a subcutaneous injection of one-quarter gr. morph. sulph., and left him for an hour. On returning I found him in no way better, and proceeded to make an incision in the palm of the hand, traversing the point of injury. He resisted so forcibly the efforts to place him under an anæsthetic that I abstained from using them. My knife had scarcely entered to the depth of one-quarter of an inch, when he sprang up, crying out, "That will do, doctor." He could then open his mouth about one-quarter of an inch. I therefore made no further attempt to extend the opening, but ordered poultices to the hand, an anodyne by the mouth, and perfect quiet. He slept a little during the night, and the next morning was able to open his mouth to the usual extent. He complained still, as might be expected, of some pain in the muscles of the face; but this passed away in the course of a few days. He also had considerable pain in the first and second fingers, but it also soon vanished. The same treatment was continued for a week or ten days, and at the end of that time he had no further inconvenience. No pus was discharged from the opening, either at the time or subsequently. The short period—less than thirty-six hours—that elapsed previous to the manifestation of trismus, and the suddenness of the relief, were two interesting points in this case.

REPORT OF A CASE OF STRANGULATED OBLIQUE INGUINAL HERNIA,

COMPLICATED WITH ENCYSTED HYDROCELE OF THE SPERMATIC CORD. OPERATION—RECOVERY.

By R. E. PAINE, M.D.,
LATE SURGEON U. S. VOLS., CAMDEN, MAINE.

The patient, a gentleman about forty years of age, has had oblique inguinal hernia during the last fourteen years, and been obliged to wear a truss constantly. Protrusion occurred during the night, and unequivocal symptoms of strangulation of the hernial tumor had existed at least three days when first seen by the writer. The day previous to my first visit he was attended by a physician, who had frequently been called on similar occasions, and who applied taxis an hour *without*, and from an hour to an hour and a half *with*, the assistance of chloroform without any success.

The patient was first seen at 10 o'clock A.M., Feb. 10, 1866. The swelling had enlarged considerably from the excessive manipulation of the preceding day; there was much abdominal pain and tenderness, obstinate constipation, constant nausea, and copious vomiting of a decidedly stercoraceous character. The symptoms had suddenly supervened, and gradually increased in intensity. All the usual medical means available had been unsuccessfully resorted to, and the taxis had been repeatedly applied. The tumor had now become exceedingly tender, the countenance assumed an anxious expression, and the pulse was wiry and accelerated.

There could be no doubt that the operation was desirable, and that without delay; accordingly, the patient was at once placed under the influence of chloroform, and a careful but unavailing attempt was made to return the tumor by the taxis. Finding that it did not yield in any way, I determined to operate at once.

The operation was performed in the usual way. On opening the sac, a tablespoonful of turbid serous fluid escaped. The intestine was found much congested but not gangrenous. The seat of the stricture was at the internal ring, and when divided the bowel was easily pushed into the abdomen.

After reducing the hernia there still remained an oval tumor, about an inch in length, situated on the cord within the inguinal canal, which had been completely covered by the hernial protrusion. It was smooth, elastic, and could be pushed up beyond the internal inguinal ring, but immediately returned when the pressure was removed. The treatment consisted in laying the tumor freely open, and then with forceps and scissors removing all the loose portions of the cyst. The external wound was closed by two interrupted sutures and water dressings applied. Half a grain of acetate of morphia was prescribed, and bland, mucilaginous drinks, and iced water allowed.

10 o'clock P. M. Pulse eighty-eight and fuller. Complains of dull pain in left inguinal region. No tenderness over abdomen. Has vomited several times since the operation. Has slept two hours. Acetate of morphia, half a grain; repeated. 11th. Has slept three hours since last visit, and has had no vomiting. Tongue lightly coated. No headache. No abdominal tenderness. Pulse eighty-four and regular. Repeated the opiate. Continued water dressings. 12th. Rested well last night, and is feeling quite comfortable. Pulse eighty. To have an enema of castor-oil and thin gruel. Takes gruel, farina, and weak tea. Opiate at night. 13th. Pulse eighty. Has had two discharges from enema. Takes bland nourishment freely. Complains of colicky pains over transverse colon. Bowels considerably tympanitic. Urine high colored. Drachm-doses of a mixture composed of equal parts of Tr. opii camph., Tr. cardamomi comp., Tr. Zingiberis, and Sp. nitri dul. prescribed every three hours, and flannels wrung in hot water applied over bowels. Acetate of morphine gr. ss. at bedtime.

14th. Pulse eighty. Tongue slightly coated. Tympanitis and colicky pains relieved. Discontinue mixture. Chicken broth and beef-tea. Also allowed wine in small quantity. Has had one discharge since last visit. Omit opiate. 20th. Pulse seventy-two. Has no pain whatever. Has considerable appetite. Bowels regular. 22d. Pulse sixty-four. Bowels moved without a cathartic. Appetite good. Wound nearly healed. 26th. Rapidly improving. Eats his usual diet. External wound healed. Pulse sixty-four.

March 20th. Patient has made a complete recovery and is attending to his business as usual. *April 25th.* Still continues well, with no trouble from the old difficulty, and no signs of a return of the hydrocele. *July 7th.* Patient says he has not been so well for the last fifteen years as now. Is free from any trouble with the hernia.

I have never before met with a case of hernia complicated with hydrocele of the cord, and think such cases must be rare. If similar cases have occurred in the service of others, I trust they will put them on record for the guidance of those young and inexperienced in the profession.

Dr. Edward H. Parker's Handbook for Mothers has advanced to a second edition.

Reports of Hospitals.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. J. FORSYTHE MEIGS.

September 1, 1866.

NEURALGIA—LOCALIZED IN THE CIRCUMFLEX NERVE FROM IMPAIRED NUTRITION AND OVER-WORK.

Mary R——, æt. 37, was admitted August 18; general health good; menstruation regular; tongue coated; has a congenital cleft palate. Has performed general house service in a family of nine in number, and has been kept on a spare diet; coffee and bread in the morning, egg and tea at noon, and bread and tea in the evening; meat only occasionally. She has not a conspicuously anæmic appearance; but is pale, and easily wearied by her laborious work. Two weeks before admission, severe pain made its appearance in the arm, immediately in front of the insertion of the deltoid muscle. There was slight tenderness, and some irritation; and a burning and stinging sensation at the upper part of the interscapular space. There was no paralysis of muscular power; and she continued to work until the day of her admission, when compelled to give up. The pain had continued to grow worse, but there was no redness or swelling at the time of examination at her admission; the pain was deep-seated. She was at once ordered full diet; and five grains of the citrate of iron, with gentian, administered three times a day. At the point of pain, twenty minims of Magendie's solution of sulphate of morphia, to be introduced by subcutaneous injection.

Friday, Aug. 24.—Patient much relieved; feels rested, and altogether more comfortable. Has had two hypodermic injections of morphia.

Aug. 28.—Pain in arm much less. There is considerable headache complained of, which may be due to the too rapid accumulation of iron in the blood; hence the amount of gentian and iron will be reduced one-half.

Sept. 1.—No pain now on motion of the arm, though at first the least motion produced intense suffering. This intense pain is gone; but there is still a good deal of distress along the upper border of the scapula, and extending to the spinal column. The headache, too, remains. The general strength is better, and appetite good. The injection of morph. sulph. is repeated.

When this patient was admitted to the wards, there was some question as to whether the case was one of rheumatism or one of neuralgia. She has had a violent neuralgic pain localized in the circumflex nerve, where it passes under the body of the deltoid. There has been a curious hyperæsthetic condition of this nerve. This neuralgia has been produced by a partially anæmic state of the blood, with debility of the body from work in excess, in proportion to the amount of nutritious food taken into the system. Where not developed by partial or direct local pressure, neuralgia seems certainly in most instances a product of the lowered condition of the general vitality; or, with Romberg, a call from the debilitated nerves for iron.

ACUTE AUTUMNAL FEVER.

Richard J——s, æt. 17, admitted, Thursday, August 30, a sailor attached to a British bark which came over for a load of petroleum, and lay near Point Breeze for a month, and subsequently for six weeks at Dickerson-street wharf. He was taken sick on Friday, August 24, with headache, fever, and herpes. There are a good many sudamina over the body; the

tongue is furred with a yellowish green fur, and is somewhat dry; disposed to be smooth in the centre. The abdomen is hot, but not with the burning aridity of typhoid fever. He has an immense crop of herpes on the face. This is rarely seen in typhoid fever; only in true malarial fevers, and sometimes in spotted fever. There is at present no pain, no headache; the appetite is poor; the patient sleeps well. This morning his pulse was 120, respiration 22, temperature 100½. At the present moment, 10.30 A.M., the pulse is only 108. There is an enlargement of the spleen, extending two inches further up than natural. This condition of enlarged spleen is at least temporary in all cases of malarial disease.

The treatment consists in positive doses of quinine.

TYPHOID FEVER.

—— ——, æt. 17, a baker's boy employed in Germantown Road; admitted Thursday, August 30. Had been sick eight days previously with a mild diarrhœa; four or five passages daily; no epistaxis; abdomen rather full and resonant; sudamina abundant, and a few rose spots; intelligence good. Had twenty-four ounces of milk-punch and twenty-four ounces of beef-tea daily.

Condition this morning. Temperature 104; respiration 32; pulse 102. Has been taking dilute muriatic acid to-day. 10 A.M.—Is very weak. This weakness complained of in typhoid fever is sometimes so great as to amount to actual pain; and it is often one of the first things complained of by a patient with the disease. The abdomen is slightly tumid, not tense; sudamina are abundant, and there are many of the peculiar rose-colored spots. The patient slept a little last night. The tongue is moist and covered with fur. Pulse 112; respiration 41. Had one stool last night, and one this morning. Has some cough. There are, behind the catarrhal, sibilant râles; coarser above, and finer below. There is a tendency to congestion of the lower portion of the lungs, so constant an attendant on typhoid fever. The act of inspiration being feeble, the air does not reach the distal portions of the lungs; of which, therefore, there is but imperfect expansion and aeration. The treatment, which will be continued, will be fifteen drops of dilute muriatic acid in a wine-glassful of water every two hours; and twenty-four ounces of milk-punch, and the same amount of beef-tea; a wine-glassful every two hours alternating. So that one hour the milk-punch is taken, and the next hour the beef-tea; and he is to be allowed as much water as he will drink. Dr. Meigs feels it not only a duty to give such fever patients a drink whenever they may ask for it, but to press water upon them; for they are often too stupefied with the disease to recognise the condition of thirst, and they suffer on; but when asked if they want to drink, they often eagerly express their desire for moisture.

CAUSES OF IMMOBILITY OF THE JAWS.—According to Leopold Berrut, permanent immobility of the jaws is due to three different causes: 1st. To anchylosis by muscular attraction, which, when without complication, needs to be treated simply by muscular section and by dilatation. 2d. Bony anchylosis, which requires section or resection of bones. 3d. Anchylosis, by production of cicatricial tissue, anteriorly or posteriorly to the joint. To this may be opposed: 1st. The palliative means, avulsion of one or several teeth; 2d. Preventive, as dilatation before and after any operation; 3d. Curative, section of the pseudo-membranes or bones.—*France Médicale.*

LONG ISLAND COLLEGE HOSPITAL.

SESSION OF 1866.

A SERIES OF CASES ILLUSTRATING CARDIAC DISEASES, SELECTED FROM PROFESSOR FLINT'S CLINICS.

[Reported by O. C. SPARROW, M.D., Clinical Assistant to the Chair of Practical Medicine and Pathology.]

FUNCTIONAL DISORDER OF THE HEART—ANÆMIA.

CASE I.—*History.*—Margaret O'Day, æt. 21 years, a domestic. She states that menstruation commenced in her seventeenth year, and continued to recur regularly till four months ago. It then ceased, and she began to experience debility, impaired appetite, palpitation, neuralgic pains, and discomfort during digestion. Lately she has been obliged to give up work.

Present Symptoms.—She presents marked pallor of the skin and prolabia; tongue is pale and flabby; extremities cold; pulse 100, small, weak, and compressible; appetite poor; bowels costive; complains of a painful sense of weight in the stomach after eating; flatulence and acid eructations, and sometimes vomits. Frequently she feels like fainting, sees *muscæ volitantes*, and has ringing in the ears. She has pain in the side, and presents the diagnostic evidence of intercostal neuralgia, viz. tenderness on pressure over isolated points in the spinal and sternal regions. Latterly palpitation has become so urgent a symptom as to occasion much anxiety, and she apprehends disease of the heart and sudden death.

Physical Signs.—The pulmonary organs are normal; the impulse of the apex beat of the heart occupies its normal situation; the superficial cardiac space is not enlarged, and the left border of the heart falls just within the nipple; outside the nipples, the percussion-resonance on the two sides of the chest is nearly equal; a soft, low murmur is heard at the base of the organ with the first sound, propagated along the course of the large arteries; it is not propagated downwards or laterally; there is a loud venous hum in the neck; the action of the heart is violent and irregular.

℞. Ferri pyrophosphatis, ʒ jss.
Tr. columbæ, fl. ʒ ij.
Syr. limonis, fl. ʒ j.
Aquæ, fl. ʒ j. M.

Sig. Teaspoonful three times a day.

Comments.—The history of this case seems to illustrate a group of associated symptoms which is of very frequent occurrence in the professional experience of nearly every practitioner of medicine.

Undue functional action of the heart, or palpitation, almost invariably holds a prominent place in the train of ailments incident to that abnormal condition of the blood known as anæmia.

Patients thus affected are prone to despondency, under a most natural apprehension that they have a grave affection of the heart. This condition of mind reacts unfavorably upon the disorder; and it not unfrequently becomes an important indication in the management to remove these fears by such positive assurances as the physician may conscientiously give.

To secure, at the outset, this great moral advantage, presupposes a proficiency in the application to the heart of the principles of physical exploration. This statement might, at first, appear somewhat paradoxical, in view of the fact that the points involved in the diagnosis of a purely functional affection of the heart are all negative. But it, in reality, requires no less skill or self-reliance to declare with confidence the absence of signs of disease than to recognise them when present.

Diagnosis.—An examination of the heart with reference to the existence of cardiac disease, whether organic or functional, presupposes a practical familiarity with the normal position, size, and anatomical relations of the organ. It is generally convenient first to ascertain the situation of the apex beat; this can be done by auscultation or palpitation, or even inspection alone frequently suffices. In this case the impulse could be both seen and felt occupying its normal position in the fifth intercostal space, about one inch within the linea mammalis, or two and a half inches outside the median line of the sternum. This alone affords strong presumptive evidence that the heart is not enlarged. But further evidence may be maintained by noting the area of the superficial cardiac space. It is often convenient, for purposes of comparison, to delineate this space on the chest. In health it pretty nearly corresponds to a right-angled triangle, whose hypothenuse would be represented by a line drawn diagonally from the normal situation of the apex beat to a point in the median line of the sternum, opposite the junction of the fourth costal cartilage. If, we now draw a line through the middle of the sternum to a point opposite the apex beat, we may easily complete the triangle. By making light percussion alternately, just within and without the hypothenuse line, the area of superficial cardiac dulness is readily determined. The normal transverse diameter of this space, measured on a level with the nipple, is about two inches. When, however, enlargement of the heart exists, the apex beat is carried outwards and downwards, and the area of superficial cardiac dulness is correspondingly enlarged. And now the hypothenuse line of the triangle, as ascertained by percussion, will extend, not to the normal, but to the altered situation of the apex beat. We may next search for the left border of the heart. For this deeper percussion is necessary. In health the line indicating its position falls just within the nipple.

Having in this manner ascertained that the organ retains its normal size, we should next proceed to listen to the heart sounds, with reference to the existence of cardiac murmurs. And we do this by means of the stethoscope, applied successively over the bare body and apex of the organ. Finding the heart sounds pure, we may safely infer that no valvular lesions exist. Thus, reasoning by exclusion, we arrive at the diagnosis of functional disorder of the heart.

But suppose, as in this case, we discover a murmur propagated in the direction of the large vessels; the question then arises whether it is organic and denotes a valvular lesion, or whether it is only an anæmic (inorganic, hæmic) murmur.

This point may be settled inferentially with considerable positiveness, by paying attention to the coexisting circumstances. If the patient be notably anæmic, and if the murmur be low-pitched and soft, heard only over the course of the large vessels, and especially if it be not constant, and not associated with enlargement of the heart, it might safely be inferred to be an anæmic murmur. The exclusion of articular rheumatism would also possess a degree of diagnostic value. This case furnishes, also, an example of another anæmic murmur. It is a continuous humming sound, and hence called the "venous hum," or, after the French, "*bruit de diable.*" It is best heard by listening with the stethoscope applied over the subclavian triangle of the neck, on the right side, with the face turned away from the auscultator.

This murmur has given rise to much discussion as regards its origin, whether it be venous or arterial. There can, however, be no doubt that it is produced in the superficial veins of the neck, since it is always interrupted by light pressure upon the veins above the stethoscope; and, again, it not unfrequently coexists with an intermittent murmur, which corresponds with the impulses of the carotid artery.

Whenever present, this murmur is a valuable sign of anæmia; but we cannot infer from its absence that anæmia does not exist.

Pathology and Causation.—A clear comprehension of the pathological connexion which obtains between anæmia and palpitation would probably involve a more thorough knowledge of the physiology of the nervous system than we yet possess. The former doubtless somehow stands in a causative relation to the latter, acting through the nerve centres which preside over the heart.

The blood has been well called a "river of life." Upon it depends the maintenance of nutrition and of all the vital phenomena of the body. We should expect, therefore, that whenever its condition becomes impoverished and abnormal, as in anæmia, the cardiac nerves, suffering in nutrition and failing to receive their healthy stimuli, should manifest these effects by an irregular and imperfect exercise of their functions. Late researches in physiology have demonstrated that the cardiac branches of the pneumogastric nerve are set over the heart, as the proper regulators of its action; and it is not improbable that these are especially concerned in the production of the morbid functional action of the organ in this affection. But palpitation is only one of the many and diversified manifestations of the morbid effects of anæmia. The neuralgic pains, ocular spectra, tinnitus aurium, feeble circulation, impaired digestion, indeed the entire group of symptoms exemplified in this case, when taken together, constitute the pathological expression of anæmia.

Treatment.—The results of remedial efforts in this disease frequently afford a striking exemplification of the resources of medical science.

The therapeutic indications are twofold: First, to remove the cause, whenever this is practicable; and, second, to endeavor to restore the blood to its normal condition. The measures which will be most likely to secure these objects consist in the use of a nutritious diet, ferruginous tonics, and stimulants to improve the digestive and assimilative functions, together with such a hygienic regimen, including exercise in the open air and mental recreation, as will tend most directly to exalt and invigorate the vital powers of the body.

Progress of Medical Science.

Report of the Cholera Conference at Constantinople.—The following propositions have been adopted by the Conference, which was nearly two months in session at Constantinople: Cholera had its birth in India, and exists permanently there as an endemic. It is *very probable* that it is endemic nowhere else, but has always come from abroad. That it may acclimate itself in the countries represented by the Commission is to be regarded as problematical. It does not appear to have had in the Hedjaz its original focus, but to have been always introduced there. That in certain localities in India, comprised principally in the valley of the Ganges, cholera is endemic. That the special conditions governing the origin of the endemic in India are unknown to the Commission, but that pilgrimages tend to develop and propagate, in a very powerful degree, cholera epidemics.

It is further held by the Commission that the disease

is propagated by man, and with a rapidity in proportion to the activity and rapidity of his own movements. That it is certainly transmissible, and the capability of propagation by the atmosphere alone is not proved.

A single cholera patient may cause the development of an epidemic. The period of incubation, or the interval between the moment when the individual may have contracted the cholera poison and the commencement of the premonitory diarrhœa, or of confirmed cholera, does not go beyond a few days. Articles in common use from an infected place, and especially those used by cholera patients, may transmit the disease, but there is no proof that it may be imported by living animals. Merchandise might possibly, under certain circumstances, import and transmit the disease, but thus far proof is absent. It would in consequence be wise, at least under particular and determined conditions, to consider as suspected everything coming from a cholera district.

Although it is not proved by conclusive facts that the bodies of patients dying with cholera can transmit the disease, it is prudent to deem them dangerous.

Regarding the influence of means, the Commission claims that maritime intercourse most surely propagates cholera at a distance, and that railroad communications are the next in order, while great deserts prove a most effectual barrier; hence the caravans from Mecca do not import the disease into Egypt or Syria across the desert.

Crowding favors the rapid spread, and, when bad hygienic conditions are superadded, increases the violence of an epidemic; but individuals who have already been exposed to the influence of a cholera atmosphere enjoy a sort of relative and temporary immunity which counterbalances the bad effects of crowding. The spread of cholera on crowded ships is ordinarily rapid, and the intensity is in general proportionate to the crowding; but the danger of importation by ships, and that of originating a grave epidemic, are not entirely subordinate to the intensity, nor even to the existence, of choleraic symptoms appearing during the voyage. The crowding of people coming from a place where cholera reigns in a lazaretto, though very dangerous for the neighborhood, has not the effect of producing among the people at quarantine a great extension of the disease. Great gatherings of men (*armies, fairs, pilgrimages*) constitute the great epidemic foci. To break up a collection of people at an opportune time may even arrest the extension of an epidemic, but may propagate it by the scattering of individuals in the midst of a yet unaffected region.

With regard to the usual hygienic conditions, the Commission regards as assisting causes of cholera, misery; over-crowding, particularly of those in feeble health; the hot season; want of fresh air; the exhalations of a porous soil, impregnated with organic matters, above all with the dejections of cholera patients, which last condition may keep up an epidemic, or even regenerate it after it has become extinct. It naturally follows that drains, privies, etc., may become propagating agents.

As far as the immunity from cholera is concerned, the following views were adopted by the Conference: Local immunity does not exclude transmissibility, but indicates that certain local conditions are an obstacle to the development of the disease; individual immunity in the midst of an infected district, is a circumstance to which we should attach the highest importance. The deductions relative to the generative principle of cholera, the Convention sums up as follows:

"In the actual state of science, we can only frame hypotheses as to the generative principle of cholera; we know only that it originates in certain countries of India, and that it dwells there permanently; that this principle is reproduced in man and accompanies him in his journeyings; that it may also be propagated at a distance, from place to place, by successive regenerations, without ever being reproduced spontaneously outside of man."

The air is the principal vehicle of the cholera principle. The more confined the atmosphere, and the nearer the focus of emission, the surer the operation of the miasm, which, like the miasm of typhus, rapidly loses its power in the open air at a short distance from the starting-point. As for the facts cited of transportation by the atmosphere to the distance of one or more miles, they are not sufficiently conclusive. Independent of the air, "water and certain ingesta may also serve as vehicles for the introduction into the organism of the generative principle of cholera."

This granted, it follows, so to speak, necessarily, that the passages by which the toxic agent penetrates into the economy are principally the respiratory passages, and very probably also the digestive canals. As for its penetration by the skin, nothing tends to prove it.

The origin of the cholera germ takes place very probably in the digestive canal, to the exclusion, perhaps, of all other parts of the system.

It results from the study of facts that, in the open air, the generative principle of cholera loses rapidly its morbific activity, and that this is the rule; but that under certain particular conditions of confinement, this activity may be preserved for an unlimited period.

Finally, the Commission adopts the following formula:

Observation shows that the duration of the choleraic diarrhœa, called premonitory—which must not be confounded with all the diarrhœas which exist during the time of cholera—does not extend beyond a few days.

Facts cited as exceptional do not prove that the cases of diarrhœa prolonged beyond that period belong to cholera, and are susceptible of transmitting the disease, when the individual affected has been withdrawn from all cause of contamination.—*Condensed from Boston Med. and Surg. Journal.*

Sudden Blanching of the Hair.—A recent number of Virchow's *Archiv* contains a highly interesting article by Landois, of Greifswald, on sudden blanching of the hair. The possibility of such an occurrence has been doubted by many, if not all eminent dermatologists of the present day, although several well known instances are recorded in history. This question is now settled beyond any doubt by observations made by the author upon a case in Prof. Mosler's clinic. The patient was 34 years old, and was received at the hospital on account of delirium tremens. At the morning visit, on the fifth day of his stay, it was noticed by the visiting physicians and the patients that the hair upon his face and head had become grey. On looking at himself in a mirror, he exclaimed: "Ach Gott, mir sind die Haare grau geworden!" Strange to say, the delirium vanished at the same time. A microscopic examination showed the presence of a great many minute air-bubbles at the white points, both in the cortical and central portions of the hair. The pigment was perfectly preserved throughout the whole shaft of the hair, and had undergone no change whatever. As the hair gradually is changed to grey the pigment disappears, but in this instance the rapid whitening during a single night was produced by the development of gas within the substance of the hair.—*Boston Medical and Surgical Journal.*

THE MEDICAL RECORD.

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OUR PROFESSORS AND THEIR QUALIFICATIONS.

THE very responsible and honorable position occupied by medical teachers would seem to entitle them to a freedom from criticism, but that they cannot claim such an immunity is apparent in the efforts which have been made to remedy the evils connected with their calling. A great number of our professors are men who, by their profound learning, skilful practice, and extensive experience, are justly entitled to our esteem and confidence. But the proportion is much too small compared with those who are totally unqualified for the positions which they occupy. The truth of this admission is as patent as the existence of such a state of things is mortifying. There is, in fact, not a medical school in the land that would not be benefited by a thorough sifting of its faculty, and too many would be in need of a sieve that would be coarse enough to allow the majority of the members to drop easily through.

It is easy enough, however, to prove that many teachers are not what they should be; but when we look about us for a practical plan for at once ridding the professorial corps of these useless and harmful members, it becomes altogether another matter. Here, indeed, is the principal difficulty of the subject, and it does not grow any the less by the aid of any light which discussion can throw upon it.

There is no number to the suggestions which have been offered in reference to insuring a competency on the part of the professors of the schools, but they have all proved to be merely visionary when subjected to the rigid test of practicability. The reason for this is made obvious enough when we examine into the manner in which our teachers are appointed, and the claims which they have upon the different colleges for their positions. Our schools, not being under the patronage of the government, are of necessity strictly private enterprises. A number of gentlemen conclude that a certain locality is a fit one for a college, and all that remains to be done in order to act upon such a conclusion is the obtaining of a charter. This latter is accomplished generally without much trouble. The State, when it has given power to the faculty of granting, under certain expressed conditions, a diploma of doctor of medicine, does not trouble itself with reference to details. As it does not furnish any pecuniary means, the expenses of the institutions must be borne by the parties who are interested, and these are most generally the teachers themselves. These are mainly self-appointed, and, of course, contribute their quota of the necessary funds. It is, after all, on their part, a purely business arrangement; a certain amount of capital is invested, and a given return is expected. If the income of the college, from the attendance of its students, is found sufficient to pay a decent percentage on the principal, we have what is usually called "a successful school."

When we consider the danger of having, under such circumstances, professors who have more money than brains, we have reasons for congratulating ourselves that our good teachers are after all in the majority; that while we have here and there an objectionable member in a faculty, we are not so badly off as we might be. This may be, in part, accounted for in this way:—Each faculty knows that, in order to gain the confidence of its patrons, and the consequent success of the institution, it must have decently qualified men to teach the different branches, and this is acknowledged to be such a necessity that brains must be represented as well as capital. The evils, then, which might otherwise be expected from the system of self-constitution, carry with themselves, to a certain extent, their own antidote.

Beyond the remedy which we here have for incompetency of our teachers, we can hardly hope to go, unless we have a centralized power in our government which shall control all appointments, and settle all questions of qualification. But there is no such centralized power in our government; and even if it did exist, its exercise would by no means be productive of those gratifying results which we see set forth in the monarchies of Europe. Our rulers, contrary to those of other countries, represent in the main the lower classes; and we have, with shame be it said, men in our high offices who are as innocent of the charge of being educated as they are of being respectable. If, then, we were to centralize the power of such officials, we should have even less surety than at present of either good teachers or respectable schools. There is, fortunately for us, no power in government which can compel the appointment of any candidate to a professorial chair in any college, or exact from such aspirant any stated qualifications. It is infinitely better for the cause of medical education that our different colleges should have such matters in their own hands. The educated portion of the community—the real patrons of such institutions—are to be the judges of the fitness of the

professors for their respective positions, and they are the ones who must exact from them a compliance with their requirements. It is in this very education of the people that the safety of all our institutions for learning lies, and just in proportion as the standard is raised will our system of teaching be perfect. Arguing upon general principles, if the faculty, as a whole, is a poor one, the college suffers; and if a very indifferent and unqualified one, the school is ruined. A faculty, for its own protection and perpetuation, must of necessity have good men, and these must be in the majority. We are glad that these bodies appreciate the importance of securing the best obtainable talent, and it is a source of gratification that their efforts have been, in a measure, crowned with success. We are, however, far from being satisfied that it is as well as it should be. There are still too many objectionable members in almost every faculty, who are poor teachers, bad lecturers, and hobbyists, and who, for the good of the respective institutions, must be weeded out. But by exercising our patience, and allowing time to bring about a demand for better men, the desired result will be effected. The current of public opinion is steadily setting in the right direction, and we have good reason to hope that at no very distant date we may be able to claim as able, as distinguished, and as experienced teachers as can anywhere be found.

Reviews.

Shakspeare's Delineations of Insanity, Imbecility, and Suicide. By A. O. Kellogg, M.D., Assistant Physician State Lunatic Asylum, Utica, N. Y. Hurd & Houghton, 459 Broome street. 1866. 12mo. pp. 204.

This work is principally made up of a series of essays published in the *American Journal of Insanity* during 1859 and succeeding years. The three parts into which the book is divided, treat severally of the so-called insane, imbecile, and suicidal characters of Shakspeare. Under the first heading we have the mental conditions of Lear, Macbeth, Lady Macbeth, Ophelia, Jaques, and Cordelia, analysed. The consideration of the "imbeciles" Bottom, Dogberry, Nym, Pistol, and others, is taken up in Part II.; while Othello occupies the whole of Part III., which is devoted to "suicides."

The author's aim in writing this book has been to prove the great knowledge of insanity possessed by the poet; and in order to carry out this intention, he examines the mental characteristics of the personages already named. In doing this he strives to draw analogies between these celebrities of the bard and those which are to be met with in insane asylums. Such an attempt, however, is not successful in establishing the points of the writer beyond according to the great dramatist, the possession of that "power to mirror nature," which has never been doubted by any one. Shakspeare could not possibly have possessed a knowledge of the different phases of insanity so much in advance of his age as that claimed by our author. The faithfulness of the pictures can only be attributed to the acuteness of his perception and the care with which he studied those characters which he has immortalized. Dr. Kellogg, although he has allowed his enthusiasm to get the better of his prudence, has however given us a very readable book; and his arguments, if not convincing, are ingenious, and his remarks entertaining. His style is easy, and the numerous brilliant and famous passages that are quoted, form a most admirable feature of the work. It is perhaps unnecessary for us to speak of the good taste displayed by the publishers in the getting up of the book.

An Introduction to the Study of the Optical Defects of the Eye, and their Treatment by the Scientific Use of Spectacles. By A. M. Roseburgh, M.D., Toronto. Toronto, 1866, Pamphlet.

This little work is a superficial compilation from J. S. Lawrence, on the "Optical Defects of the Eye," and J. Solberg Wells, on "Impaired Vision," which are in their turn compiled from Professor Donders' great work on the "Accommodation and Refraction of the Eye." It formed an introduction to a course of lectures, in which the subject matter as presented had a very appropriate place; but what propriety there was in its publication we cannot imagine, unless the circulation was to be limited to the class to which Dr. Roseburgh lectures. The author is favorably known to the profession by his efforts to obtain photographic views of the fundus of the eye; but we fear that this little book, with its advertisement on the fly-sheet of "Dr. Roseburgh's Solution of Atropine and Calabar Bean Paper," will hardly add to his reputation as a scientific oculist.

A Guide to the Practical Study of Diseases of the Eye, with an outline of their medical and operative treatment. By James Dixon, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, Moorfields. From the third London edition. Philadelphia: Lindsay & Blakiston, 1866. 12mo. pp. 383.

The timely republication of this useful and practical work will, we doubt not, be appreciated by such students and practitioners as may desire to commence the study of eye diseases. We know of no work that is better calculated to serve as a guide to the study of this important branch of surgery than the one now before us. The whole science is presented in outline, and the reader is furnished with a substantial and reliable foundation for future studies. All the various advances which have been made in the diagnosis of diseases of this important organ are intelligibly treated of; and no one who reads the book, and who is not a specialist in the branch, can fail to receive wholesome instruction. In the first chapter, under the head of "Optical Defects," the phenomena of refraction and accommodation are clearly described; following which, the diseases emmetropia, ametropia, hypermetropia, myopia, presbyopia, and astigmatism, are truthfully and intelligibly presented. The examination of the eye is next considered, and, embodying as it does a comprehensive discussion of ophthalmoscopy, properly prepares the reader for the appreciation of the different diseases which are in turn taken up. These two chapters are by themselves worth the whole cost of the volume.

The Physician's Visiting List for 1867. Philadelphia: Lindsay & Blakiston. 18mo.

This "Visiting List" is adapted for twenty-five patients daily, is well arranged, of very convenient pocket size, durably and neatly bound, and will, we doubt not, meet the requirements of a large class of practitioners. The following is the enumeration of its contents: an almanac for 1867, a table of signs, Marshall Hall's ready method, poisons and their antidotes, table for calculating the period of utero-gestation, blank leaves for visiting list, monthly memoranda, addresses of patients and others, addresses of nurses, accounts asked for, memoranda of wants, obstetric engagements, vaccination engagements, record of births and deaths, general memoranda, etc.

Reports of Societies.

EAST RIVER MEDICAL ASSOCIATION.

Stated Meeting, August 7, 1866.

Dr. John Hart, President, in the Chair.

EMPHYSEMA.

Dr. Alexander Sterl read a paper upon the above subject.

Laennec was the first to describe vesicular emphysema thoroughly and scientifically; and later observations have added but little to his researches, only a portion of his theory having called for a revision at the hands of modern pathologists. Two varieties of the disease are recognised by authors, the *vesicular* and the *interlobular;* but the former, which is the more frequent, monopolizes nearly all the interest of investigators. The latter variety may be defined as simply an infiltration of air into the meshes of the areolar tissue of the lungs, and may occur either between the lobules, or on the surface of the lung, in which case the subpleural connective tissue is implicated. In this latter instance the resulting *bullæ* may glide from place to place under pressure; otherwise they are stationary, and constitute during life about the only means of diagnosis from the vesicular variety, with which it is occasionally associated. In *subpleural* emphysema the pleura has been known to give way, and true pneumothorax for a time been produced. Interlobular emphysema, then, always sudden in its advent, is caused by violent straining during the retention of a large quantity of air in the lungs by the closure of the glottis, by the efforts of parturition, or even of defecation, and by the raising of weights; by coitus, violent coughing, paroxysms of rage, excessive laughter, and hysterical convulsions. Blows upon the chest, and violent concussion of the lungs to the extent of laceration, without any simultaneous injury to the parietes, have given rise to it. Occasionally, too, air, after penetration to the roots of the lungs, has been known to enter the mediastinum, and inflate the connective tissue of the chest and neck. This constitutes the regular emphysema of the old authors. Carried to extremes, this condition of the lungs quickly produces death by apnœa, but when less extensive a spontaneous cure may take place. Interlobular emphysema, *per se*, is of rare occurrence; so much so that many in full practice, even beyond the ordinary term of life, have failed to meet with a case. This is true in a greater degree of the vesicular dilatation of Laennec. It may be said to run an acute course when developed quite rapidly from probably an equally rapid and extensive collapse of lung portions, brought about by bronchitis, influenza, hooping-cough, acute phthisis, or the algid state of cholera. Commonly the process of air-cell dilatation is gradual, extending over an indefinite period of time, and superinduced by the collapse of a portion of lung tissue from whatever cause; this in turn necessitates the enlargement of other cells, so that the entire viscus may still conform to the natural cavity. But this expansion does not follow when a number of cells become filled with morbid material, as in pneumonia and phthisis, since in such cases there is no diminution of texture. The lesion, then, is rarely, if ever, idiopathic in essence, but a sequence of thoracic mischief. Bronchitis, especially when chronic, is its most frequent progenitor. Other causes have been enumerated, such as tumors within the thorax, cardiac hypertrophy, aneurism of the thoracic aorta, deformity of the chest consequent upon a crooked spine or tight lacing; in fact, anything tending to reduce the bulk of the lung, by pressure on the bronchi, may secondarily produce cell dilatation.

Observation has demonstrated that the lungs posteriorly, particularly near the roots, are much more prone to suffer collapse at that than at any other point; and it has also been established that the cells more contiguous to the anterior surface become most frequently dilated. No part of the lung, however, is exempt from this dilatation, nor does it seem to be confined much oftener to the one than to the other, since it is not uncommon to find both equally affected. Walshe states that the base of the left and the apex of the right, anteriorly, are favorite starting-points; others, among whom is Watson, claim the point of election for the apex of either lung, anteriorly, even designating the left apex as being oftener primarily affected than the right. But be the origin where it may, the disease is progressive, and having secured a firm base of operations, it is not slow to extend its line. The rapidity of this extension depends, of course, on the amount or frequency of recurrence of the exciting causes. Necropsia shows a lung thus affected to be lighter than normal, with many individual cells of perhaps the size of a millet seed; or in case the walls of a number of contiguous cells have given way, the resulting *bullæ* may be fully as large as hen's eggs. The relatively paler hue and drier condition of the emphysematous portions have been thus accounted for: "As the cells dilate the capillary blood-vessels distributed over their parietes are gradually compressed and emptied; and many of them are, at length, completely obliterated. Hence, not only an exsanguine condition of the pulmonary tissue, but atrophy also of the intervesicular partitions, which become first thin, then tattered and imperfect." By examining the collapsed parts we find them entirely exhausted of air, and carnified. When detached they sink in water; and on application of the knife they will be found quite firm and resisting. After section a fleshy, brownish-red appearance is presented.

Walshe thinks that emphysema is even more frequently hereditary than phthisis; but perhaps the proposition may be made more correctly to refer to the hereditary *predisposition* awaiting the advent of the ordinary developing causes. In what this proneness to emphysema consists is still a matter of doubt: on the one hand, it is believed to be simply a low degree of vitality, a weakness of fabric; on the other, fatty degeneration.

The chest of a person affected with well developed emphysema is unusually prominent, the bulging being more marked, perhaps, at the infra-clavicular, mammary, or central sternal region than elsewhere; sometimes, but not usually, the protrusions are symmetrical. An awkward tilting forward of the shoulders may be remarked. There is a widening of the intercostal spaces, and an up-and-down movement of the chest in respiration, with little if any expansion; in other words, the breathing is abdominal. The clavicular outline is ill defined; the capillary circulation imperfect, and giving rise to a turgid condition of the hands, and engrafting upon an anxious look a dusky countenance. In consequence of an impaired appetite, the body, but not the face, is usually somewhat emaciated. During the winter cold hands and feet are the rule. The pulse is rather feebler and slower than normal. There is a habitual shortness of breath, increased on the slightest exertion; but there is marked improvement, as far as this symptom is concerned, in summer. The lungs containing more air than in health, the percussion sound is of course unnaturally clear, extra resonant, and of a tympanitic quality. Auscultation discloses a very indistinct respiratory murmur, or may fail to detect any at all, except when

the breathing is forced; and even then it is often masked by a wheezing sound, which, in turn, may be referred to bronchial difficulties merely. The auscultatory phenomenon of imperfect or absent respiratory murmur is explained on the ground that there is but a limited play of the ribs, and hence a large amount of air in the lung *at rest.*

Expiration is much prolonged; the natural proportion of the inspiratory to the expiratory act, from being about as three to one, becomes as one to four. Vocal resonance is increased anteriorly, and diminished posteriorly. But years may be necessary to fully develop all these symptoms.

During the progress of the disease, paroxysms of urgent dyspnœa, arising at times without any obvious cause, may occur, particularly during the night, and so constitute a species of real but innocent asthma. Walshe mentions four causes for these paroxysms, namely, bronchial spasm, abdominal flatulent distension, a loaded state of the portal system, and intercurrent bronchitis; the two first of which, he says, are productive of the sudden nocturnal disturbance above mentioned, whilst the two last cause them to be more protracted, though not so severe. After these asthmatic attacks, a large quantity of rather clear urine is often voided.

Pulmonary emphysema, though it does not often occur in connexion with tuberculosis, may still complicate it: in the first place, when the tuberculous deposits press upon some of the ramifications of the bronchial tubes, obliterating their cavity, and causing collapse of the lung-cells by cutting off the supply of air; or, secondly, when a limited number of small cavities have been established in a lung, the walls of which during the healing process, by virtue of the composing fibrous element, necessarily contract, and so obliterate the cells immediately surrounding these walls.

The effacement of the pulmonary capillaries of an emphysematous lung is apt to cause disease of the right chambers of the heart, dilatation of their cavities, and tricuspid regurgitation, with an eventual hypertrophy of substance, in which case palpitations, œdema of the feet, or more extensive anasarca may be observed during the dyspnœal paroxysm. These dropsical symptoms, from having been only temporary, at length become permanent. The heart, too, may sometimes be simply displaced to either side, perhaps downwards. Notwithstanding the incurability of the disease, the fact that it constantly predisposes to bronchitis, and imparts an extra severity to it, should constantly direct our attention to this and all probable complications. This intercurrent bronchitis is often found to resist for a long while our best directed remedies. During its continuance considerable emaciation is apt to result; and this feature, conjoined with this peculiar condition of the respiratory apparatus, misled our forefathers into diagnoses that phthisis was present, and prognoses that dissolutions were imminent.

Treatment.—When subacute capillary bronchitis is the complication, local bleeding, counter-irritants, antiphlogistics, etc., are recommended. An oil-silk jacket or thick flannels around the chest answer the purpose of every necessary outward application; but should the fever run high, particularly if there be also some intestinal disturbance, it would be well to premise the treatment by the administration of a dose of calomel combined with some drastic cathartic. After the evacuation of the bowels, tartar emetic, as an alterative and diaphoretic, is exceedingly useful. Nitre, combined perhaps with a small quantity of morphine, when the cough is very distressing, may be also resorted to. The production of a more decided diaphoresis, at the very outset of the disease, should likewise be a desideratum. To effect this the patient may be placed in a warm bath, the temperature being 98° or 100° Fahrenheit, and kept there for fifteen or twenty minutes; after which, brisk friction in a warmed room with warm towels, followed by a warm, well blanketed bed, will complete the routine. At the same time, a combination of spiritus mindereri, spiritus nitri dulcis, and vinum ipecacuanhæ, may be employed as an adjuvant. Diuretics are highly lauded by some, and given by them throughout; they are especially useful after the first onset of the attack. Potassa in solution, combined with acetum scillæ, is a good representative diuretic mixture in these cases. The above treatment, with variable modifications depending on the severity of the attack, also holds good when acute or subacute *simple* bronchitis is the intercurrent disease. *Acute* capillary bronchitis is rarely observed in connexion with emphysema, probably because it prefers to attack children and young subjects, whilst emphysema is usually developed later in life. The prognosis of the combination of these two diseases must be regarded as decidedly unfavorable. Chronic bronchitis in emphysematous subjects is generally treated with expectorants as well as with diuretics, of which iodide of potassium is probably the best. Walshe recommends the ethereal tincture of lobelia combined with ipecac in an ammoniacal mixture. For the attacks of dyspnœa, extract of cannabis indica or of belladonna in one grain doses may be given. Morphine is preferable in some cases, on account of its rapidity of action. The smoking of stramonium leaves often acts beneficially.

When the cause is recognised to be flatulent distension of any portion of the alimentary canal, carminatives with bicarbonate of soda or of potassa will afford relief, and an emetic will speedily unload the stomach of any crude ingesta in distressing excess. These means failing, the inhalation of ether or chloroform has been recommended. But after all, about the most reliable palliative agents in the treatment are to be found in a rigid adherence to regularity in habits, and in a residence where the climate is both warm and equable.

Dr. Weisse had derived considerable benefit from continuous and increasing doses of iod. potass. He thought that the relations of the skin towards the mucous membranes had been, as a rule, too much ignored in the treatment of emphysema, chronic bronchitis, and phthisis. The vapor bath was also to be regarded as a valuable remedy, and strychnia in small doses has likewise been recommended, as well as the internal administration of chloroform. In all the cases which had come under his observation he could trace a hereditary tendency, and yet, in the absence of statistics, he inclined to the opinion that even this was more constantly true of phthisis. -

After a report of several recent cases of cholera, and a desultory debate, in which Drs. Morse, Hart, Newman, M. L. Smith, McSweeney, T. Nichols, Stein, Priestley, and Sterl participated, the meeting adjourned.

New York Medical Journal Association.—The new rooms of the *New York Medical Journal Association* are now open, at 58 Madison avenue, corner of Twenty-seventh street, in the Mott Memorial Building. They are well adapted to the requirements of the association, and it is intended to make them a central point of attraction. The "reunions," which formed a pleasant feature of medical society last winter, will be resumed during the coming season, and, with the coöperation of the profession, it is believed that the association will carry out the good ideas upon which it is based.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, SEPT. 19, 1866.

Dr. JAMES ANDERSON, President, in the Chair.

INFLAMMATION OF THE CAVITAS TYMPANI, AND ITS RELATION TO THE EXANTHEMATA.

Dr. O. D. POMEROY read a paper on the above subject. He stated that authorities differed regarding the parts first implicated in the inflammation; that some held that the diseased action began with the external ear, and so implicated the *membrana tympani*, while others maintained that the mucous lining of the throat was primarily affected; and that the *Eustachian tube* conducted the inflammation to the cavity of the tympanum. The latter he deemed to be the most rational solution of the problem. He quoted statistics in proof that scarlatina, rubeola, variola, erysipelas, and continued fever, originated this condition of things more frequently than any other class of diseases. Scarlatina of these exanthems furnished by far the largest percentage of cases. The inflammation ranged through various degrees of intensity, and was followed by results in proportion, from a slight thickening of the tympanum, which was of little consequence, to an anchylosis or to a complete sloughing out of the *ossicula*. The tympanum might become sunken by reason of the external pressure of the air, which had no pervious Eustachian tube for a counterbalance. The internal ear also was often rendered useless by the extension of the inflammation. The implication of the mastoid cells and the sacrifice of life by the extension of the morbid process to the brain itself, were not unknown. As another of the sequelæ, the integrity of the auditory nerve might be impaired by atrophy and various other degenerations.

It was incumbent upon all at all times, in the conduct of these exanthematous cases, to keep in view the probable sequelæ. The condition of the throat should be watched, the tympanum examined, etc. When inflammation is detected, the pain should be mitigated by dropping into the ear a solution of morphine, warm water, the application of dry or moist heat; but everything in the way of a poultice is to be avoided on account of the macerating effect brought to bear upon surfaces. The objections to the domestic remedy of a roast onion are merely theoretical; the bad effects arising out of the stimulating properties of that vegetable are only allegations. Stimulating agents, such as chloroform, ether, tinct. camphor, turpentine, etc., are to be eschewed in this stage as being worse than useless. The use of cotton-wool, for the reason that it prevents the escape of the secretions, is reprehensible. With all these, counter-irritation behind the ears will be found beneficial. Politzer's method was founded on the principle that air might be forced into the Eustachian tube, when rendered patent by two muscles concerned in deglutition. The air is accordingly introduced during the act of swallowing by means of a tube inserted between the compressed nostrils. Obstructions may be removed in this way and adhesions broken up. After the lapse of a few days, when a pervious condition of the Eustachian tube shall have been established, the vapors of the *tinct. iodini* are exhibited through the medium of an appliance combining the Buttles inhaler with the Politzer apparatus—a combination for which the profession is indebted to Dr. Roosa. Chloroform, ether, carbonic acid, etc., may be thus employed. When the Eustachian tube is impervious, the bougie, with all due caution, is to be brought into requisition, since the possible danger of breaking up the ossicula is not to be lost sight of. In case the membrane is ruptured, and the otorrhœa is persistent, stimulating astringents are to be tried. For the granulations when slight, the *argenti nitr.* in solution, of strengths to meet the emergency, and for the larger, more exuberant ones, *nitric acid* itself may be resorted to. Cotton-wool, also, by its pressure, is said to have been used with good effect in this city. Dr. P. dwelt at some length upon the difficulties to be encountered in the examination of children, as well as those attendant upon the diagnoses of inflammation of the middle and internal ears respectively.

Dr. ROOSA thought that the difficulties of making a proper differential diagnosis in the case of the middle and internal ears had been somewhat exaggerated by Dr. P. The condition of the membrana tympani he considered to be a sufficient guide. For the examination of this organ, in the absence of the mirror usually employed for illumination, a broken bit of ordinary looking-glass might be readily substituted, and the auricle so stretched that the canal, which is not so curved as in the adult, might be straightened. He was aware that the inflation of the cavity during acute inflammation was very painful, but would not on that account condemn it without trial. A child, in whom it is very important that the tube should be kept open, can be very readily induced to permit the employment of the Politzer method. In this way the two muscles just mentioned might be aided in their efforts, and further trials thus rendered more easy.

He would allude to an improvement in the Politzer apparatus, of which he had lately been made cognisant, and of which Dr. Weber was the first adapter. It consists in the addition of Dr. Clark's nebulizer, by which a second rubber bag acts as a reservoir, and maintains, what is very desirable, a constant instead of an interrupted current. Dr. Weber also employs a little receptacle for vapors beyond this second bag.

Dr. R. desired to correct a growing impression, particularly among country practitioners, that the study of aural diseases was exceedingly difficult, and required a withdrawal from the ordinary duties of the profession for their proper understanding. Nothing, he considered, was wider of the truth.

THE CHOLERA AS IT APPEARED ON BOARD THE ENGLAND.

Dr. N. W. J. HEATH then rehearsed, by invitation, the facts relative to the epidemic on board the *England*, as they came under his personal observation. The account was substantially that already given by Prof. Clark in a note at the conclusion of his eighth lecture (MEDICAL RECORD, Vol. I. p. 303). The additional particulars were, that the second case of cholera appeared in a part of the ship far distant from the first, and that no diarrhœa prevailed until after the disease was fully established. The firemen, he stated, lost more by death than the crew, probably in consequence of the debilitating nature of their calling. He would direct attention to the fact, which he considered rather significant, that the cholera subsequently appeared on board of the *Virginia* in exactly the same latitude and longitude. He would also mention the case of the pilot who had been two days out, and who had had no communication whatever with the infected ship, except by a line, which answered the purpose of bringing the contracting parties into more convenient relations. This person did not board the ship at all, and yet was the first in Halifax or vicinity to contract and die of the disease. His home was two miles distant from that city. He would also state that, after the passengers had been dispersed over a wider area upon McNab's Island, the disease was checked, and the prevailing diarrhœa readily yielded to ordinary remedies, such as the chalk mixtures, sugar of

lead, etc. As regards the possibility of communicating the disease by the atmosphere alone, much would depend upon the degree of dilution, the quantity or volume of the poison; and the individual susceptibility. The force of his remarks might be made more apparent by using the familiar agent of alcohol as a simile. In the matter of treatment, camphor, in doses of from five to ten grains, frequently repeated, had been employed in the earlier stages with gratifying results. Calomel (fifteen grains) and opium (two grains) had also been faithfully tried, and, when bilious stools had resulted, with good effect. Chloroform had also been internally administered during the cramps, in fifteen-drop doses at short intervals, and had well answered its purpose.

Dr. Griscom maintained that the history of the cholera on the *England* just given proved most decidedly that the excessive filth, absence of ventilation, etc., originated the disease. In other words, that it was not epidemic in character, but an *endemic* generated by local causes solely.

Dr. Heath, in reply to Dr. Griscom's inquiry, denied the correctness of a published statement that some of the passengers on board the *England* had been detected drinking soup from the same vessels into which their excrements had been passed. Some of them, however, had been known to conceal their dejecta behind boxes, etc.

Dr. Eliot had, nevertheless, been informed by the captain of a passenger ship, of which he was once the surgeon, that the habit to which allusion had been made by Dr. G. was not uncommon.

Dr. Herzog controverted Dr. G.'s view of an endemic element merely, and suggested the presence of two local infecting foci, in explanation of the outbreak of the disease at points on board the vessel widely apart. The case of the pilot he would admit to be unique. It was very significant, however, that cholera was prevailing in Holland when the *England* left, and that local causes must have been powerless on board of the *Bavaria*, than which there was no better vessel afloat. Again, why was there no endemic at the Andersonville and other prisons during the war, where every condition favored a development?

Dr. Harris said there were a few missing links in the history of the oft-mentioned pilot, which he hoped would be soon supplied. Drs. Parkes, Clark, and Budd agreed, however, that the specific poison of the cholera might be propagated for a short distance from a focus through the air. This view is more or less popular, but there is a lack of definite facts. Dr. H. alluded to the circumstance of the unshipment and confinement of a number of passengers in a fort at Antwerp, near which the vessel was moored, and quoted the number who had perished of the disease in that city. The vessels of the line to which Dr. Heath had been attached, were models of cleanliness and good management, and yet were visited by the pestilence in preference to those patronized by a poorer class, who were more closely packed, had made longer voyages, and had experienced rougher weather. Then, too, the soldiers on David's Island, some of whom had visited the dens in the First Ward, while the disease was raging there, when transferred to the San Salvador, over-crowded perhaps, but which condition was not of sufficient duration to generate any disease depending upon bad air, were attacked when only a few days under weigh, and finally landed at Tybee Island. Many of these men, like their comrades upon Hart's Island, N. Y., died, breathing the most unexceptionable air! Again: at St. Louis, last year, when the thermometer ranged 98 degrees out of the sun, when the city was overflowing with reckless mustered-out soldiers, there was no visitation. This year it has been diffused through the most beautiful streets and best kept residences. The same was true of Memphis. He had therefore come to the conclusion, in which he was joined by the majority of the profession, that it was certainly epidemic.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Feb. 28, 1866.

Dr. Frank H. Hamilton, President, in the Chair.

BONY TUMOR OF LOWER JAW.

Dr Enos, of Brooklyn, exhibited a bony tumor which he had removed that afternoon from the right side of the lower jaw of a young lady, twenty-four years of age. It had existed for about a year, and had given the patient no pain. Some months ago, she consulted a dentist about her case, when he referred her to Dr. E. The advice given by the latter gentleman was to make an incision along the alveolar process down to the bone, and (in the belief that it was cystic disease) afterwards to syringe out the cavity and apply pressure from the outside, hoping that, by the latter means, absorption would be promoted. This was done, and quite a quantity of fœtid substance escaped after the incision. The dentist syringed out the cavity left several times, and compression was brought to bear upon the bone in the manner advised, by a properly-adapted pad, with an elastic band which extended over the head. This treatment was continued for some months, without making any perceptible impression upon the size of the tumor. It extended from near the external incisor of the lower jaw, along the body of the bone, up to within half an inch of the condyle; and also to the outer side of the coronoid process.

It being determined to remove it, the patient was put under the influence of anæsthesia, ether being mainly used; and finding that she could breathe freely through the nose, a sponge was introduced back into the mouth in order to receive any discharges, and prevent their entrance into the trachea. The tumor was removed entirely through the mouth by an incision which extended from the anterior and outer aspect of the coronoid process, along the alveolar margin, to the anterior point of the tumor. When the soft parts had been thus divided, they were crowded from the bone by a flattened curved instrument, devised for the purpose by Mr Tiemann, until the outer aspect of the tumor was reached. This having been done, a metacarpal saw was placed in the opening which had been previously made by the dentist, and the anterior border of this bony cyst was divided, first upwards towards the coronoid process, and downwards towards the lower margin of the body of the jaw. Then, with a bone forceps, the mass was further divided, and finally was entirely removed. The disease proved to be cystic in character, and of that form usually spoken of as osteo-sarcoma, or spina ventosa. When a probe was introduced into the opening made by the dentist, dead bone was touched; but after the syringing had been carried on for some little time, the cavity in the bone became covered with granulations. The size of the tumor could only be approximatively made out, and was estimated to be in thickness, at its thickest or most protuberant point, fully an inch. There was no positive cause for its origin, and the only injury which had been done to the jaw at all was the extraction of a carious tooth within the previous year.

Dr. Draper remarked that the soft matter which Dr.

Enos described as granulations, had very much the appearance of myeloid tissue, or rather the myeloid tumors which grow about the jaw. He was not aware, however, that they ever took an osseous change.

In answer to a question from Dr. Hamilton, Dr. Enos remarked that the disease evidently originated in the medullary canal.

GUNSHOT WOUND OF SKULL.

Dr. Enos also presented a specimen of gunshot injury of the brain, and gave for it the following history: This was taken from a man, thirty-one years of age who was brought to the City Hospital (Brooklyn), on the evening of the 23d of December. He had attempted to take the life of the young lady with whom he was walking by shooting her three times in the head, when he fired two shots at himself with the same pistol, lodging the balls also in his head in the vicinity of the right eye. When he came into the hospital, the eye was very much protruded from the socket, separating the lids. He was entirely conscious. I saw him the next morning, and enlarged one of the wounds, which was above the right eye. It had entered at this point, breaking through the external angular process of the frontal bone, and passing into the temporal fossa. The integument was divided in order to get the ball and fragments of bone out. The missile was about the size of a large pea. He did not wince while the integument was being divided, no anæsthetic, of course, being used; but if the protruded eye happened to be touched, it seemed to give him great pain.

Another ball entered a little below and to the outer side of the eye, breaking through the anterior process of the malar bone, passing into the orbit, through the posterior and outer part of the eyeball itself; then reaching the orbital process of the frontal bone, breaking through it, it seemed to be turned out of its course, and was found somewhere imbedded in the superior maxillary bone. He went on for about a week without any unpleasant symptoms, being all the time entirely conscious, but exceedingly reticent. He had always been a vegetarian, and doubtless was not in his right mind at the time the deed was committed. After a week, he presently refused to take food, when evidences of cerebral trouble began to show themselves in slowness of speech, slowness in protrusion of the tongue, etc. He died comatose, ten days after his admission into the hospital.

Autopsy.—Some inflammation was found in the meninges, with slight deposits of pus and serum. A considerable quantity of serum was also found in the ventricles. The orbital plate seemed to have been broken, and spicula of bone were driven up from this vicinity so as to irritate the dura mater. These are the particular points of the case, but a medico-legal question might arise in connexion with it of considerable importance. Suppose this man had been found dead in the street, with a pistol in his hand. The question would naturally arise—Did this man inflict both these wounds upon his head, or was it done by another, and the pistol placed in the hand of the victim for the purpose of concealing the guilt of the assassin? If fired by the man himself, would we not suppose that the first shot, so near his head, would have so completely stunned him, as to render him incapable of firing the second? If one of the balls had entered another part of the body, we might infer that the one penetrating the skull was the last one fired, and that this was the one which had proved fatal. I asked the man why he was not stunned, and he replied that he himself was surprised that he was not at the time. He said that he aimed first at his eyeball.

In answer to a question from Dr. Garrish, Dr. Enos stated that the patient, immediately after the shots were fired, lay down beside the girl, and "*finding himself not dead,*" went down to the dock and plunged in; but the tide being low, and the water being very uncomfortably cold, he soon clambered up on *terra firma*, and then wandered about the streets in an abstracted state of mind, and in so doing was arrested and brought to the hospital.

Dr. Finnell asked Dr. Enos which of the two wounds he supposed had been inflicted first.

Dr. Enos replied that, having thought of that matter a good deal, he had come to the conclusion that he could give no good reason why one should have been inflicted before the other.

Dr. Finnell suggested that it might be possible that the one described by Dr. E. as the first shot, was really the one that had first been fired.

INJURY OF SKULL—COMPRESSION OF BRAIN—TREPHINING.

Dr. Reynolds exhibited a few spicula of bone, which had been removed by the trephine and elevator from the skull of a little boy, nine years of age, who had fallen upon his head from the balcony of a house into the area, a distance of some seventeen feet. The patient struck upon the forehead, causing a gash in the soft parts, and indenting the bone on the right side in the situation of the temporo-frontal region. The gash extended across this region, down towards the right ear. Several physicians were called in, and pronounced the case a hopeless one, until finally Dr. Thomas, their family physician, arrived; when, at his instance, Dr. Thebaud was sent for, who also came in the course of two hours afterwards. The child, during all this time, was in an insensible condition, was delirious, and exceedingly restless. Dr. Thebaud concluded that there might be a chance for saving the life of the boy by the elevation of the depressed bone, and accordingly performed an operation with such an object in view. The trephine was applied so that its edge corresponded to the edge of the depression, which was over an inch deep, and extended in a direct line to the distance of about two inches. The depressed bone was elevated, and loose portions were removed, leaving an oval excavation about one and a half inches long and one inch wide in the skull bone. The brain could be distinctly seen pulsating at the bottom of the cavity. The little fellow became less restless, and the wound was simply dressed with cold applications. Two weeks after, the child was able to sit up in bed and play. No symptoms of brain trouble showed themselves throughout the whole of the treatment. The part now is nearly closed over, and has the appearance and feel of a fontanelle.

In answer to a question from Dr. Hamilton, he stated that, not being present at the operation, he could not say whether the operator was able to lift the portions of bone which were elevated without displacing them.

Dr. Hamilton remarked that treatises on fractures of the skull did not allude to many of the peculiarities of such injuries which were to be observed in children. One of the most marked of these peculiarities was, that the portions of the bone that were depressed were more apt to be bent than broken, and that in consequence of such a condition it was very difficult to elevate them at the point at which the instrument was applied.

PNEUMONIA—ITS DISTINCTION FROM COLLAPSE OF LUNG.

Dr. Lewis Smith presented a specimen of a lung taken from a child who died in one of the institutions of the city, at the age of ten months. It was admitted

into this three weeks before its death, and at the time appeared to be well, with the exception of a slight cough which the parents said it had for some time previous, but how long it is not known. As the infant was well nourished and cheerful, but little attention was given to this symptom, and it was thought to be the simple result of a cold. It remained in this state until it had been about two weeks in the institution, when it was taken with a pretty abundant diarrhœa, which, however, was readily controlled. Some two weeks after that, and some four weeks before its death, it had head symptoms, which led the physician to suspect the commencement of meningeal inflammation. There was evidently pain in the head, and the little patient did not seem to notice objects as previously, and besides there was considerable fever. The symptoms continued until the close of life, which took place unexpectedly. On making the post-mortem examination, no meningeal inflammation was discovered; there was no increase of vascularity of the membranes of the brain, but there was a serous effusion lying all over the convolutions of the organ, and in the cavity of the arachnoid and also in the lateral ventricles; the foramen of Munro being considerably enlarged in consequence. On examining the thoracic organs there was emphysema in both of the upper lobes of the lung. The amount of air at the roots of the organs was considerable, and extended between the lobules to the anterior surface of the lobes. The middle and inferior lobes of the right lung were healthy, with perhaps a little infiltration in the lower lobe. The lower lobe on the left side was found hepatized, and appeared to be in the second stage of pneumonia. Numerous points were found where blood had been effused immediately under the pleura. There was no disease of the intestine, with the exception of a slight vascularity of the colon, which evidently dated back to the time when the infant had diarrhœa. The points of interest were, the condition of the brain accounting for the cerebral symptoms, the emphysema which is not so unusual in infants, the effusion of blood under the pleura, and the latency of the pneumonia. In this case there were no symptoms to direct attention to the examination of the chest, no marked acceleration of the respiration, and no increase in the pulse until the cerebral symptoms were developed. It would seem that this pneumonia had continued for a week or more, at least the cough had dated back to that time. Dr. Smith thought that in such cases of protracted pneumonia we do not find that grey color which we see in the adult. He did not recollect ever to have seen grey hepatizations in an infant.

Dr. Draper remarked that Dr. Smith described one of the lesions of the lung under the head of pneumonia, and he believed that the condition was ordinarily described as such. Dr. D. did not, however, think that it was a true case. He had examined several similar specimens, and although they had presented under the microscope some of the elements of pneumonia, they were not in their clinical histories cases of that disease.

The history, said he, seems to be this: that they are ordinarily collapsed tissue, and the clinical history of the cases in such instances is such as would be associated with this condition. This child is described as brought to the hospital with symptoms of bronchitis, which did not attract attention; yet the lesion of collapse was gradually being produced in consequence of occlusion of the smaller bronchial tubes; and in this case it involves nearly all of the right lung. Along with this collapse there is a certain amount of congestion, and as the result of this congestion an exudation takes place, and gives the tissue some of the microscopical peculiarities of true pneumonia. Along with this lesion, emphysema is obviously enough a common attendant.

Dr. Bibbins suggested that there was one way of determining the difference between pneumonia and collapse—namely, by inflation.

Dr. Smith remarked that it was impossible to inflate the specimen presented.

Dr. Draper did not think that the lung in collapse from bronchitis could be inflated as in ordinary atelectasis, for the reason that it would be very difficult to force the air through the occluded tubes. In answer to a question from Dr. Smith, he stated that in children the walls of the air vesicles rupture with great ease; while in the adult this is less common, and is generally the result of fatty degeneration of the tissue of those parts.

Dr. Bibbins stated that cases of collapse of the lung occurred usually in feeble children, and that they either recovered from that condition very soon or else died. He inquired if there were cases in which the lung became collapsed and remained so for any length of time.

Dr. Draper thought that it was a condition that was usually recovered from in vigorous children.

Dr. Smith conceived it to be very difficult to inflate lungs that were long in a state of collapse; he had made efforts to do so, and had in some instances actually produced a local emphysema.

(*To be continued.*)

New Instruments.

THE NEW UTERINE PORTE CERATE.

By FREDERIC D. LENTE, M.D.,

OF COLD SPRING, N. Y.

The great uncertainty and difficulty in the treatment of all chronic diseases of the mucous membrane, and the excessive tediousness of the cure, even when it is effected, arise mainly from the difficulty, not unfrequently the impossibility, of making the requisite local applications to all parts of the diseased tissue; the Schneiderian membrane, that lining the tympanum, and the uterus, afford illustrations. In all these situations the thick, tenacious mucus, always coating the membrane, protects it pretty effectually from any mild applications, even if reached by them, and it is utterly impossible to dislodge it perfectly. For the ear and the nose, Politzer's, Thudichum's, and other recent methods of injection have lately promised to effect great improvements. But for the uterus, this mode of application, either by gas or fluid, though effectual, perhaps, has not proved to be safe in all cases, and has been generally abandoned. In order to apply the *solid* nitrate of silver effectually to all parts of the diseased lining of the uterus, whether of cervix or body, I devised my uterine *porte-caustique*, elsewhere described; by means of which, without the tedious process of dilating the cervical canal and *os internum*, the nitrate may be thoroughly wiped over the whole of the diseased membrane. This treatment I have found safe and generally effectual in the most chronic cases. But there are some patients who may not be willing to tolerate this treatment, and many in whose cases it is not advisable to employ so powerful a means of cure. The next most effectual vehicle for the application of different stimulants, alteratives, and astringents, is *cerate*, which many physicians use quite extensively in their uterine cases.

The imperfection of all the contrivances for making these applications which have fallen under my notice,

has deterred me hitherto from entering to any extent into the use of ointments. They have two troublesome defects—in being too rigid, so as not to admit of being bent so as to suit the varying curve of the cervical canal; and in being too large, so that unless the canal be dilated, which it generally is not, they cannot always be made to reach the *os internum*, and very frequently cannot be made to *pass* it and enter the uterine cavity without considerable force and great pain, if at all, unless dilatation be previously practised. If made smaller in calibre, it has been found too troublesome to charge them with the ointment. It has been my aim to overcome these disadvantages by the contrivance here very neatly delineated by Mr. Tiemann's engraver.

It consists of a tube of pure silver, not larger than a number three catheter, with a handle of hard rubber, through which runs a perforation continuous with the tube, and into which the nozzle of a small hard rubber syringe accurately fits. The distal end of the tube is slightly bulbous, and well rounded so as not to irritate the membrane in passing; and, at a distance of two inches from it, is a slight enlargement of the tube, so as to indicate to the eye when the *os internum* is reached. To admit of easy introduction, even into the cervical canal, the instrument should be moderately curved; but, in most cases, when it is necessary to pass it into the cavity of the uterus, as in flexions or versions, or when the speculum has produced some displacement, it is requisite to curve it much more; before doing this, it is safer to pass the whalebone obturator, which accompanies the instrument, to avoid injuring the tube. This obturator may also be used for emptying the tube for cleaning it, or when a change of ointment is desired, although heat will do as well, or passing through a syringe full of hot oil. *

A convenient ointment for use as a vehicle for iodine, nitrate of silver, subsulphate of iron, tannic acid, etc., is made by rubbing up one part of olive-oil with two parts of lard. If the weather or the room is moderately warm, this can be drawn into the syringe without softening; if cold, it requires to be slightly warmed; and if the weather is very hot, it will be too soft. The syringe holds sufficient to fill the tube and retain sufficient for an application; but by filling the tube and then refilling the syringe, it will contain enough to make several applications, which obviates the necessity of carrying about a box of ointment, and of recharging the instrument after each application. Upon pressing with some force on the rod of the syringe, the cerate protrudes from the extremity of the tube in a tenacious, vermicular form, not unlike the so-called Pharaoh serpents from their egg. The mode of application is the same as with the *porte caustique*. The sound or probe having ascertained the precise curve of the canal, the *porte-cerate* is bent to correspond. It is better not to attempt to pass the instrument *through the os internum* without first ascertaining, *at each application*, whether a larger instrument will pass. I first pass a probe with an olive-shaped bulb, and, when dilatation is needed, two or three different sizes successively. This mode of dilating, which is sufficient for all practical purposes, is but slightly painful, only requires a few minutes, and often saves a good deal of time which is lost in the slow process of dilating with tents.

This instrument may be applied to other uses; as, for instance, in making applications to the prostatic portion of the *urethra*, instead of Lallemand's, or to its whole length in some obstinate cases, and to the female urethra in some cases, to the nares, to sinuses, to the *rectum* in chronic inflammation or ulceration, or to irritable or ulcerated stricture in that locality. It may also be used very advantageously as a suppository syringe, it being so small that it would produce little or no irritation if passed carefully, and so long that it could be passed four or five inches; and the ointment, spreading immediately over the mucous membrane, would be almost immediately absorbed, and could not be passed with any discharge from the anus. In very irritable conditions of the rectum, as in *dysentery* in children, where it is generally impossible to get a suppository retained, it might be particularly serviceable. By rubbing up four doses of morphine or other anodyne with just enough ointment, or oil, or glycerine, to fill the syringe (after filling the tube with the same preparation), when the piston-rod is pushed up to the extent of one of the four divisions marked on it, we know that just one dose and no more has entered the rectum; or, in case of the vagina, has been applied against the cervix uteri; the preparation being soft, spreads in the latter situation, immediately around the cervix, and is in no danger of being forced downwards by the contractions of the vagina.

* By care in bending, however, the obturator may be dispensed with.

Correspondence.

THE OPERATION FOR CATARACT, ETC.

PARIS, August 20, 1866.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR—From London, a journey of thirty-six hours brought me to Berlin. I found the people indulging in every demonstration of joy at their brilliant victories over the Austrians. The king had just returned home, and the public approval was testified in flags, wreaths, pictures, and other devices which we have so frequently employed, and by an illumination of the city, which was not specially brilliant. But my steps were quickly turned to the "Augen Klinik," on the Carl Strasse, where Professor A. von Graefe has, during the last ten years, won so many successes in the field of ophthalmic surgery. The titles of some of his victories are iridectomy for glaucoma, a correct knowledge of diphtheritic conjunctivitis, the physiology of the muscles of the eye, muscular asthenopia, etc., etc. Those bulky volumes, the "Archiv für Ophthalmologie," are full of the labors of his fertile genius.

For a year or more he has been endeavoring to extend the operation of linear extraction to cases of hard cataract. He has the merit of having already given preciseness to the operation as applied to soft cataract; and now, in conjunction with Bowman and Critchett, he is trying to remove a hard lens through a smaller wound than a flap operation requires.

You know he employs a very narrow knife, which is scarcely more than a very long and broad paracentesis needle. But his mode of removing the lens was by a hook, sometimes sharp, sometimes blunt. It has a bend in the shank, and was passed behind the lens flatwise, and then slightly rotating the point forwards, it caught the lens at the lower border of the nucleus, and lifted it out. The wound which Graefe makes is entirely in

the sclera at the upper part of the anterior chamber, and he makes a free iridectomy before opening the capsule. He published the results of these operations as follows:—sixty-nine operations; of these, in sixty-two the result was perfect; in seven, the result was imperfect. There were no complete failures. Two-thirds of these patients were in hospital practice; the balance in private practice. The degree of vision obtained varied between S.$\frac{1}{10}$ and S.$\frac{3}{4}$—the latter being a very high mark. After extraction, S.$\frac{1}{4}$; that is, a sharpness of sight one-fourth that of the healthy eye, is entirely satisfactory.

But Professor Graefe was not yet satisfied, and he has now operated on eighty-eight additional cases without resorting to the hook. He makes the operation in precisely the same manner as before, but delivers the lens by skilfully managed pressure and counter-pressure. Moreover, in the former cases he habitually employed chloroform; in the last cases he has used it only four times. He wants to have the coöperation of the patient's ocular muscles in extruding the lens, while by the small size of the wound the vitreous is prevented from escaping. This last accident was the especial liability of the hook operation, because the hyaline membrane was very likely to be torn. This accident did not occur to Graefe with great frequency; but it certainly happened often in the hands of less skilful manipulators.

The results of the eighty-eight operations without the hook, and without chloroform, are given in an appendix to the French translation of the article on linear extraction, published in a late number of the "Archiv für Ophth l." He says: "The escape of the cataract in these last eighty-eight cases has been exclusively effected by manœuvres which cause it to slip out. I am convinced that this method, carefully directed, can bring out even the hardest cataracts. The advantages which it undoubtedly enjoys above the hook are, first, that the crystalline is more likely to come out unbroken, and consequently there will be less cortical matter to require ulterior manipulations. Second, less danger of rupturing the hyaline fossa. In the last eighty-eight cases, loss of vitreous took place in only six and one-fourth per cent., while it occurred in fourteen per cent. of those operated on by the hook."

There are many things in this brochure which would interest the medical profession; but it ought to be presented entire, and not by driblets.

There was little being done at the clinique during my stay. Only such operations were performed as were inevitable or unimportant. Graefe, like many of the Europ an surgeons, takes two or three months' holiday, and finds it good both for himself and his patients. He sometimes establishes a sort of country hospital, by making his patients come to his place of sojourn. He is looking in excellent health, and is full of work. Not content with the labors of his clinique, where he has about 150 beds and a yearly dispensary practice of eight or ten thousand patients, he has accepted the directorship of the cholera hospitals of Berlin. In this service he was spending five hours daily. The epidemic was at that time on the decline, and Graefe was to leave Berlin in a few days. I found nearly the same corps of assistants as when I was formerly at the clinique. Excepting Liebreich, who is now in Paris, Professor Graefe's staff consists of six medical men, besides nurses, porters, a director of the hospital, and household servants. Medical practice in Berlin is extremely unremunerative; a professional income of 5000 thalers is large. Even operations are paid for according to the views of the patient rather than by the demand of the surgeon.

My next point for ophthalmic observation was Utrecht, Holland. This place may, without much abuse of words, be called the focus of ophthalmology. Here, within the last eight years, have been wrought out the principles of the refraction of the eye. Here originated those terms, emmetropia and hypermetropia, which are now in the mouth of every oculist. Here the true character of myopia and presbyopia was shown—the function of accommodation in its relation to the conveyance of the visual lines by the internal recti muscles was expounded. Here the fact that the refraction of the eye in different meridians is frequently unlike. In a word, astigmatism was, if not first discovered, first made a practical discovery, and the means of its detection given. Physiological optics is the field in which Professor Donders has made an enduring name. His partner and assistant, Dr. Snellen, has also contributed an essential share to our knowledge of vision. He has shown us how to measure with accuracy the degree of sight both in health and disease. Taking the visual angle of five minutes as the average degree of normal vision, by a series of graduated letters he enables us always to refer to this standard. Snellen's test-types are now everywhere, and his formula

$$V\ (\text{sharpness of sight}) = \frac{d\ (\text{size of types})}{D\ (\text{distance at which they are seen})},$$

has become classical.

Utrecht has been fearfully scourged this summer by cholera. In one small street of 300 people there were eighty deaths. Among a population of 60,000 there were over 5000 deaths. Dr. Snellen has worked hard among the hospitals, and has been making experiments in the hope of finding out the mode of propagation of the disease. He has fed dogs, cats, pigs, and fishes with the excreta of patients, but had not yet produced cholera among the animals. The *Niederlandische Lancet* will contain the details and results of these experiments. Prof. Donders had left home, and the service at the eye hospital was very light. Dr. Snellen showed me every attention, as his manner is to all strangers; and he converses most fluently in English, as well as in French, German, and Dutch.

The hospital is small, containing forty beds; but is the cleanest and most complete in all its appointments of any I have seen. There is everything not only to treat patients well, and to do operations conveniently, including a rich collection of instruments furnished by the hospital funds, but there is a perfect set of apparatus for scientific study of eye disease. The number of optical instruments is without parallel. I think I saw every modern instrument which is of the slightest value. Anything which has any claim to merit in scientific inquiry is supplied to the hospital. How much I envied those ample rooms, not cumbered with patients, but for quiet examination of interesting cases. I know, however, that American surgery is not slow to appropriate all that European science can offer; and our practice is not a whit inferior, even in eye disease, to the best in Europe.

I was not able to stay long in Utrecht, but hastened to Paris, from which place you may hear from me again.

Yours truly,

HENRY D. NOYES.

Brevet Lieutenant-Colonel L. A. Edwards, Surgeon United States Army, now on duty at Baltimore, Md., has been ordered to report for duty to Major-General Howard, to relieve Surgeon Caleb W. Horner, who has been granted two months in which to close up the affairs of his office before he is mustered out of the service.

CHOLERA ON BOARD THE SHIP AGNES.

To the Editor of the Medical Record.

Sir—By somebody's mistake, mine or the printer's, it is stated, on page 305 of The Record, that "The cholera did reappear in this ship." I hope the construction of the sentence has suggested to the reader that it was framed for a negative. It is due to the care and foresight of "the Government officials and the Marine Commissioners" at Antwerp, as well as to the true history of cholera, that it be read with the negation. "The cholera did *not* reappear in this ship."

Yours truly, A. Clark.

New Publications.

Books and Pamphlets Received.

A Treatise on the Origin, Nature, Prevention, and Treatment of Asiatic Cholera. By John C. Peters, M.D. New York: Van Nostrand, 192 Broadway, 1866. 12mo. pp. 162.

Medical Communications, with the Proceedings of the Seventy-fourth Annual Convention of the Connecticut Medical Society, held at New Haven, May 23 and 24, 1866. 8vo. pp. 109.

Cystic Tumors of the Jaw. By J. Mason Warren, M.D. 8vo. pp. 7.

Memorial Address, Prof. D. S. Conant, M.D. Delivered to the Graduating Class in the Medical Department of the University of Vermont, by A. B. Crosby, A.M., M.D., Professor of Surgery, etc., etc. 8vo. pp. 29.

Manual of Materia Medica and Therapeutics, being an Abridgment of the late Dr. Pereira's Elements of Materia Medica, by Frederic John Farre, M.D., Cantab. F.L.S., etc., assisted by Robert Bentley, M.R.C.S., and Robert Warington, F.R.S. Edited, with numerous references to the U. S. Pharmacopœia and many other additions, by Horatio C. Wood, Jr., M.D., Professor of Botany, etc., with 236 wood engravings. Philadelphia: Henry C. Lea, 1866. 8vo. pp. 1030.

The Hunterian Ligation of Arteries to relieve and to protect Destructive Inflammation. By Henry F. Campbell, M.D., Professor of Anatomy N. O. School of Medicine, etc. From Southern Journal of Medical Science. Augusta, Ga. From the Author. 8vo. pp. 18.

Charter, By-Laws, etc., of the Columbia Hospital for Women and Lying-in Asylum, Washington, D. C. 1866. 8vo. pp. 19.

Transactions of the Vermont Medical Society, for year 1865. 8vo. pp. 55.

Epidemic Cholera: Its Pathology and Treatment. By A. B. Palmer, M.D., Professor of Pathol. and Pract. Med., etc. 8vo. pp. 33.

Medical Society of New Jersey Transactions, 1866. Centennial Meeting. 8vo. pp. 320.

The Physician's Visiting List for 1867. Philadelphia: Lindsay & Blakiston.

A Tribute of Gratitude.—The inhabitants of Amiens, wishing to testify to Madame Cornau, wife of the prefect, the sense of her devotedness during the prevalence of the cholera in that city, recently presented her a medal as a pendant to that given by the Empress Eugenie. The ceremony of presentation took place in presence of a concourse of about forty-five thousand persons. Mlle. Mathilde Boulanger, a young woman saved from the epidemic by the personal care of Madame Cornau, was selected to present the medal, and read an address, to which Madame Cornau was unable to reply except by tears.

Medical News.

personal.

Surgeon-General Barnes, who was taken seriously ill at Chicago, returned to Washington, Sept. 17. We are happy to announce that there is every prospect of his soon being enabled to resume his official duties.

Dr. B. A. Vanderkieft, Brevet Colonel and Surg. U.S.V., died in Rochester, N. Y., of hepatic abscesses, Sept. 8.

Brevet Major B. F. Fryer has been appointed Assistant Medical Director on the staff of General Hooker, Department of the Lakes.

Assistant-Surgeon John E. McDonald, U. S. Army, died of cholera, at St. Louis, on the 10th ultimo.

Assistant-Surgeon William H. Bradly, Brevet Major U.S.A., is assigned to duty as Examining Surgeon of the Fortieth Infantry, at Washington, D. C.

Dr. William Hart, who had been boarding a short time past at Bay Ridge, Long Island, N. Y., died very suddenly of apoplexy on the 17th ultimo, aged about 75 or 80 years His friends and residence are unknown.

Dr. James H. Anderson died in N. Y. city, Sept. 7.

M. Gibert, the celebrated Dermatologist of the Hôpital St. Louis, died in Paris, July 31, of cholera, aged 69. Mr. G., says the *Medical News and Library*, had for several days suffered from premonitory diarrhœa, but neglected to take any measures to arrest it, as he had always ridiculed the significance of such prodrome. He fell a victim to that error of judgment.

Statistics of Cholera.—According to Dr. Elisha Harris, who, in his official capacity as Registrar and Corresponding Secretary of the Health Board, enjoys superior facilities for obtaining accurate information, there were in thirteen large towns in Holland, up to July 25, 10,348 cases of cholera, and 6,700 deaths. In Rotterdam, 1,504 cases, and 945 deaths. In London, 3,116 lives were sacrificed in five weeks. In New York, the following table will exhibit the mortality from May 1 to August 25: In private dwellings, 276; City Hospital, 2; Bellevue Hospital, 19; Battery Barracks, 63; Red House Hospital, 17; other hospitals, 5; Blackwell's Island, 294; Ward's Island, 140; Randall's Island, 19; total, 835. And the following statement will show the whole number of deaths in Kings county from July 1, when the disease first appeared, to August 25: In private dwellings, 311; city hospitals, 55; Penitentiary, 45; Jail, 19; county towns, 19; Kings County Hospital, 16; Brooklyn City Hospital, 1; total, 456.

New Hospital for Out-door Poor.—The Commissioners of Charities and Correction have nearly completed and will soon open a building adjoining Bellevue Hospital, Twenty-sixth street, as a hospital for medical and surgical relief for the out-door poor. They are to appoint an Honorary Consulting Board of not more than twenty practitioners of medicine and surgery, whose duty will be to receive applications for appointment to the staff of attending physicians, and report those whom they may deem competent.

This institution, in its organization and the scope of its charities, will copy the dispensaries and the college cliniques. The cases to be treated are classified as follows: Diseases of the chest, of the digestive system, and diseases not contained in other medical specialties; diseases of the nervous system, of the male genito-urinary system, of the skin, of the eye and ear, diseases peculiar to women, diseases of children, orthopœdic surgery, and surgical diseases not embraced in other surgical specialties.

The Columbia Hospital for Women and Lying-in Asylum, Washington, D. C., which was chartered June 1, 1866, is now open. The establishment of an institution of this kind in Washington was mooted as far back as 1863, but owing to the distracted condition of the country the plans were not carried into effect until the time above designated. The building, a large and commodious one, situated on the corner of 14th and M streets, is well furnished. The beds are divided into twenty at $6 per week, which are intended for those able to pay board, and fifty for charity patients. In addition there are twenty private rooms, entirely separated from the main portion of the building, for which the occupants are expected to pay $10 per week; and twenty beds by special arrangement with the Secretary of War and the Surgeon-General, have been set apart for the wives and widows of soldiers and sailors. A Congressional appropriation of $10,000 a year very materially aids in defraying the expense of supporting the free beds. The medical staff consists of the following gentlemen: Surgeon-in-chief, Dr. J. H. Thompson; Consulting and Advisory Board, Surgeon-General Joseph K. Barnes, U.S.A.; Drs. Joshua Riley and Grafton Tyler of Georgetown; Drs. Thomas Miller, A.Y. P. Garnett, W. P. Johnston, and Flodoardo Howard of Washington.

How to make Autopsies odious.—We are surprised to notice that a number of respectable physicians of Philadelphia, to whom the body of Probst was consigned after execution, appear to have lent themselves to the publication in the newspapers of the details of their experiments and dissections, which are related in such a manner as to horrify the public mind and foster the popular aversion to autopsic examinations. Had it been the leading purpose to punish the criminal after death, and add to the terrors of the law the terrors of another profession, the plan was well executed. The narrative, as paraded in the newspapers, is admirably calculated to place the hangman and the surgeon on the same platform, and to start the question in the minds of men whom the gallows alone might not deter from crime, whether they are willing, in addition to the gallows, to be subjected to the ghastly horrors of galvanism and evisceration, by professional amateurs, in the presence of reporters and witnesses, whilst the flesh is still warm and palpitating. But what bearing has the transaction on the popularizing of autopsies and anatomical dissections in general? The interests of medical science demand the removal of the deep-seated prejudice which affects the public mind on this subject. It is a great question for our profession. Students cannot equip themselves for duty without the means of anatomical dissections. The knowledge of disease and therapeutics cannot advance without post-mortem examinations. But a foolish, though a very natural prejudice, presents a serious obstacle to our progress. And this prejudice is cherished and extended by the association of the hangman and the doctor. These professional entertainments, in common parlance, *do not pay*. They cause us to be regarded as ghouls. They furnish some scientific amusement, it is true, but they block up the way to autopsies in every other direction than by the way of the gallows. It is our belief that physicians had better refuse all such unsavory jobs. If the corpse of a malefactor is to be punished or treated with indignity, let it be done outside of the profession. Let our association with the dead, in the public mind, be one of respect and decency, not of wanton mutilation and amusement. Let us claim the necessities of science and humanity as the only basis of necroscopic examinations, and as the proper limit of all such examinations.—*Pacific Medical and Surgical Journal.*

Mode of Caring for the Prussian Wounded during an Action.—The trains which accompany the medical department of a Prussian *corps d'armée* into the field consist of three heavy hospital trains, each of which has fourteen surgeons, one hundred and fourteen men, sixty-nine horses, and eleven wagons, and three light division hospital trains, each with thirteen surgeons, seventy-four men, fifty-six horses, and ten wagons. Each train carries medicines, materials, instruments, and ambulances for two hundred sick, so that an allowance is made for more than twenty per cent. of the men of each corps being *hors de combat*. Each *corps d'armée* has, besides, a company of sick-bearers, who, on the day of battle, are divided among the troops; each battalion has also ten men appointed as assistant sick-bearers, who, with the regular sick-bearers, carry the wounded to the rear; no other man is ever allowed to quit the ranks under fire. When a man is struck he is taken immediately a short distance out of fire to where the battalion surgeons are waiting; they hastily bind up his wound, he is then placed in an ambulance wagon, and carried to the light divisional field hospital, which is kept out of fire about a couple of miles in the rear. The surgeons here perform any necessary operation that is absolutely required.

PROGRESS OF THE CHOLERA.

In Europe.—A Vienna letter says: "In Kremsier, the cholera is increasing rapidly. One thousand Prussians have died there already. The soldiers are made to exercise two hours daily to keep them in health, and they are strongly enjoined to be moderate in food and drink. In Brunn also the malady has increased. In a village near it, 104 persons have died out of 1,200 inhabitants. In another, containing 400 inhabitants, 60 have died." In Belgium and Holland the situation is alarming, the epidemic still claiming fresh victims in increasing numbers. In England, London and Liverpool are the only large communities suffering from the visitation—the former city reported 307 deaths for the week ending August 29, and the latter 157 for the week ending August 18. Italy (Sept. 6) is sorely visited,

In the United States.—A slight impetus, indirectly attributable perhaps to the close humid atmosphere and the usual storm about the last of September, has been given to the disease in New York and Brooklyn. In the former city, on the 19th ult., there were eight cases, none fatal; and in the latter three cases and four deaths. At the Quarantine on the same day, the hospital ship *Falcon* received four cases, one of which ended in death. A telegram from Providence, R. I., September 16, states that eight fatal cases of cholera have occurred in Bristol, R. I., in the last three days, and that there were two deaths from cholera in the former city on the day before. A fatal case was reported in Hudson City, New Jersey, on the 18th ult.; and seven cases, one death, constituted the choleraic record in Philadelphia on the day succeeding.

The Health Officer of Louisville, Ky., reports thirteen deaths from cholera during the week ending the 17th ult. They were scattered over the city, rarely two deaths occurring in any one locality. The general health of the city has been better this season than ever before known. The disease has been declared epidemic in Memphis, though its ravages are mainly confined to a section near a bayou. Out of 174 deaths, 107 were from cholera. The largest number of deaths was on the 14th ult., forty-seven cases being reported. Forty-three deaths occurred in Nashville in one day from the same disease, and twenty-five in Savannah during one week.

Original Communications.

FIVE CASES OF POTT'S DISEASE.

TREATED BY TAYLOR'S SPINAL ASSISTANT.

By W. E. VERMILYE, M.D.,

OF NEW YORK.

In February, 1863, Dr Chas. F. Taylor, of this city, read a paper before the Medical Society of the State of New York, on the subject of Pott's Disease of the Spine, and introduced to its members the instrument whose action and use will hereafter be described. As it is probable that some members of the profession may never have seen the paper spoken of, we append a description of the apparatus, with a brief account of the principles involved in its action. That principle has reference, first, to the fact in mechanics, that a bent bar of metal or piece of wood can best be straightened by making pressure, not at the ends, but at the middle; and secondly, to the indications of treatment, viz. *the relief of pressure at the point of disease.*

The instrument, as applied, consists of a broad hip-

Fig. 1.

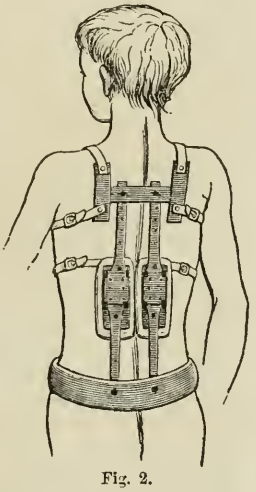

Fig. 2.

band, which passes above the pubes and below the abdomen, so that the latter is held up instead of pressed downwards. To this band two pieces of flattened steel are attached, which pass upwards on either side of the spinal column, so that it is firmly kept from lateral deviations. At the top is a cross-piece, made of thinner steel, in the form of a double T, to which the shoulder-straps are buckled. These straps pass over the shoulders and under the arms. The pads are placed at that part of the uprights which is opposite the point of disease, and are thus made the common fulcrum of a double lever. These pads are very important parts of the instrument. They are made of canton-flannel filled with either ground cork or with African or East India wood, and are tied or sewed to the instrument, so that they can be renewed or replaced as often as they become hardened or saturated with perspiration. For the same reason, the shoulder-straps and hip-band are provided with similar movable pads. The abdomen is sustained by an apron of stout "twilling" with tails of webbing, by which it is attached to the hip-band below and to the uprights above. The instrument is provided with several hinges, which admit of a perfectly free use of the spinal muscles. The hinges in front are "stopped," but admit of a free backward bending.

Fig. 1 represents a front, and Fig. 2 a rear view of the instrument as applied. (The engraver has made the apron in Fig. 1 appear loose or hanging. The lower end is firmly *fixed* to the hip-band by buckles, and is kept sufficiently tight to sustain the abdomen.)

"It will be seen that the instrument, like the spine itself, acts like a double lever with a common fulcrum at the curvature. This action is directly backwards at the hips and shoulders, and directly forwards at the middle of the back, or wherever the diseased part is located. Thus the posterior, the only healthy portion of the diseased vertebræ, is made to support a part of the weight of the body, and the intervertebral cartilage and bodies of the vertebræ, where the disease exists, are relieved of pressure. Every attempt at forward flexion, the effect of which without the instrument would be received on the diseased vertebræ, like a finger caught in the hinge of a door, is now borne by the instrument, which acts as a constant protection to this part of the spine, sustaining on itself every strain and jar. Indeed, it is really a kind of splint for the—in effect—broken back." *

Fig. 3 represents the apparatus so far modified as to meet indications when the disease is at the cervical or upper dorsal vertebræ. The principle of action remains the same, but there is the addition of a head-supporter and elevator. At the top-piece is fastened a pivot, to which is attached a curved piece of steel, padded and covered, to receive the head. It is passed forwards and upwards so as to come just behind the ears. A strap is fastened to each end of this to receive the chin.

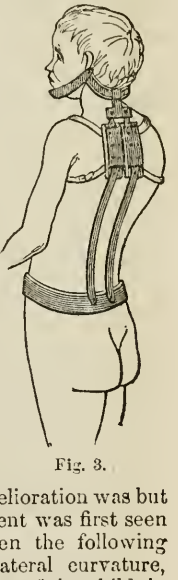

Fig. 3.

Case I.—George A., aged six years. For more than a year he had shown symptoms of impaired digestion, and for six months had suffered severely with pains in the sides, stomach, and bowels. There was also much wastefulness and great nervous excitement and irritability. The worst symptoms had been at times in a measure relieved, but the amelioration was but partial and of short duration. Patient was first seen on the 30th of December, 1865, when the following physical symptoms were present: lateral curvature, which varied with the varying positions of the child, in his attempts to obtain relief; patient walked on his toes with his heels turned outwards; the head was thrown back and carried on one side; all the lumbar vertebræ protruded, the most prominent one being the second. The "Spinal Assistant" was applied at that visit, but, owing to the child's excessive nervousness, great difficulty was had in keeping it on, especially at night. When it was insisted, however, that it should be worn, both by day and night, and these directions had been partially followed for a few days, improvement began; and now, June 25, the vertebræ have been restored to their natural appearance, and the child may be considered as cured. The parents, however, have been directed to keep on the instrument for some time to come.

Case II.—Thos. T., aged eighteen months. The most marked features in this case were the great enlargement of the abdomen and the rounding up and projection of the back. There had been more or less gastric disturbance, though this symptom was not prominent. Litting the child by the arms would cause it

* From Dr. Taylor's paper.

great pain. Although it was midsummer when the patient was first seen, yet the improvement on the application of the "assistant" was immediate and decided. It was worn about eight months with entire restoration to health and form.

Case III.—John R. T., aged seventeen. Came under treatment March 14, 1864. Six months before, he had had typhoid fever severely, from which attack he dated his subsequent illness. For many weeks he had been unable to walk more than a few yards without rest, and he was disqualified for going up and down stairs. When lying down, it was with the greatest difficulty he could turn from side to side, and he was totally unable to rise from the bed or floor without assistance. There was much gastric disturbance, diarrhœa, pain, and loss of appetite; and emaciation had gone on with considerable rapidity. He entered the office bent forwards at the hips, his head carried on one side, his hands resting upon the thighs, in order to give support and equilibrium to his body. His pulse was rapid and irregular, his skin dry, harsh, and shrivelled, his complexion sallow, while his general appearance and expression denoted long-continued, persistent suffering. All the lumbar vertebræ seemed more or less implicated, but with the curve at the second and third.

Two weeks after the application of the instrument, this patient walked to the office, a distance of half a mile. In another fortnight he could go up and down stairs without help; his digestive organs had become normal in action, and he began to regain flesh and strength. In five months he took a clerkship, the duties of which were easy; and the following autumn, seven or eight months after the treatment was begun, he accepted a position in the Sixth Avenue Railroad office, which has kept him busily and actively employed ever since. Last winter we met him skating on the Central Park, active, lithe, and vigorous, his figure restored to its original form and symmetry. He wore the instrument from preference rather than necessity.

Case IV.—Wm. H. S. This child was passing the winter of 1863–4 with his parents in the island of Cuba, where the symptoms of Pott's disease began to show themselves. The best surgical talent in Havana was had. The diagnosis was established, and a prognosis in accordance was given—long-continued suffering and probable death, or if not death, then inevitable hump-back.

In great alarm, the parents immediately returned to their home in Philadelphia, and sought advice for their child there. The opinions of the Spanish physicians were in the main confirmed, and a course of treatment was advised, but not fully entered upon. An attempt to restore the general health by tonics and nutritious diet seemed of no avail. Paralysis of the lower extremities ensued, and the patient in every respect grew rapidly worse.

From the gravity of the symptoms, it is probable that several vertebræ were diseased, though the projecting knuckle was at the second and third lumbar. Treatment was begun June 1, 1864. Relief to the severity of the symptoms followed very soon after the application of the instrument. Within a month the paralysis was cured. This little patient is now living in Paris. In a letter recently received from his mother, she writes that he is entirely restored to health and vigor, with no appreciable trace of the late terrible disease.

Case V.—John McC, aged thirteen months, born in Scotland, and came to New York in April of this year. When about a year old, his mother noticed that he would cry out on being lifted, and continue to moan for some time after. When landing in the city these symptoms were increased, accompanied by diarrhœa and vomiting. A "bunch" was also observed on the back. The medical advice of Dr. Wm. W. Jones was obtained, who sent the patient to this office May 5, 1866. Since three months of age, the child has been raised on a bottle. He is of fair size, and seems tolerably well nourished. Location of disease, second and third lumbar vertebræ. Disease evidently in its incipiency; probably not more than an ostitis.

Improvement began with the application of the instrument. Within a month all untoward constitutional symptoms had subsided; by the first of July the patient had regained his appetite and flesh, and the prominence was fast disappearing.

The literature of Pott's disease of the spine is confessedly meagre. Indeed we know of no first-rate monograph on the subject, while most of the best text-books in the general practice of surgery pass the affection over with slight notice. This may be accounted for from the fact that its pathology has been a mooted question; how it begins, and whether or not it be tubercular in its character. Hence its treatment, as might be expected from all uncertain pathology, has been more or less unsettled. Those who have treated it as an acutely inflammatory disease have of course relied upon antiphlogistic means—blisters, setons, caps, etc. The best surgeons of modern days, however, have abandoned this treatment, and advocate a reliance upon the curative powers of nature, aided by a nourishing diet and tonics, the patient meanwhile being kept upon his back for weeks or even months.

That this latter is better than the former treatment, we think will not be questioned. But even here the patient must be more or less excluded from air and exercise, just at a time when nature demands these very agents as important means of cure. Hence even this modern treatment must be regarded as tedious at best, and to a certain extent uncertain and unsatisfactory. When the patients recover, it is with anchylosis and humpback, more or less pronounced.

With the use of the instrument whose action is illustrated in the foregoing report, we know that most cases of angular curvature of the spinal column can be *arrested* in their destructive development. That many cases may be *cured* by it, all constitutional disturbance stopped, and all deformity relieved, the cases above cited, we think, are sufficient proof. Four of the five were grave in their character, both as regards constitutional disturbance and deformity. In all but Case V. the deformity was a marked feature. In Case III. it was very great. The prominence was nearly three inches in height. As has been seen, it was entirely reduced.

It is proper to state that an accurate measurement of every case is made when the patient first comes under treatment. A piece of thin lead is carefully laid along the spine while the patient is lying on the face, and the irregularities left upon it are traced on heavy paper; the "pattern" is then cut out and filed for future reference and comparison.

1303 Broadway, N. Y.

Treatment of Burns.—Dr. M. Gavin advises the treating of burns by painting them with a thick solution of gum arabic, mixed with a small proportion of gum glycerine, the glycerine to act medicinally by its soothing properties, and mechanically by preventing the gum from falling off in scales. The part burned is to be painted with such a solution, and allowed to dry by exposure to the air.—*Dublin Medical Press.*

A CASE OF OVARIOTOMY, WITH REMARKS.

By JAMES B. CUTTER, M.D.,

NEWARK, N. J.

Mrs. O'N., aged 33 years, is married, and the mother of five children, all but one of whom are living. She noticed an enlargement of the abdomen in May, 1865; this gradually increased till I first saw her, in consultation with Dr. John F. Ward, of this city, in October of the same year. At this time her abdomen was much enlarged, perhaps a little larger than that of a woman at the full term of pregnancy; had menstruated regularly for the past year; could not state precisely whether the tumor or swelling first appeared upon the side of the abdomen; was of the impression that it started from below, in the median line, and gradually increased upwards. Upon examination of the abdomen it was found smooth and regularly protuberant, fluctuated distinctly on percussion, tumor freely movable, and changed with the position of the patient; dulness on percussion at the umbilicus, marked resonance at the lumbar region, no bulging of the sides of the abdomen, and no œdema of the lower extremities.

The diagnosis of encysted dropsy (multilocular), left side, having been made, the nature of the disease was freely stated to the patient, husband, and friends; and as it was of rapid growth, and she had been gradually losing flesh and strength, an operation for the removal of the tumor was advised as the only means of palliation and cure. She at once consented to have the operation performed, even if it presented but faint hopes of success. My friend, Dr. W. L. Atlee, of Philadelphia, being in town, accompanied me, and saw the patient, confirmed the diagnosis I had made (the correctness of it having been disputed), and considered the case an excellent one for an operation, and advised its performance without delay.

At the time of our first visit the patient was suffering from intermittent fever, appetite gone, and strength very much prostrated. She was at once placed upon the full use of sulph. quinine until the disease was controlled, then small doses repeated at short intervals until the day of the operation. Mur. tr. ferri, fifteen drops three times daily, was given for two weeks preceding the operation, which took place on Monday, Nov. 13, 1865. Milk porridge was the only nourishment allowed for the two days preceding the operation, and ol. ricini ℥ j. the night before, which produced a free evacuation of the bowels; McMunn's elixir of opium, gtt. xxx., the morning of the day of the operation, and gtt. xx. one hour before.

The bladder having been evacuated, the patient was placed upon the operating-table, and anæsthesia produced by a mixture composed of ether two parts, chloroform one part, administered by Dr. Goodridge, of Brooklyn.*

At a quarter to 3 P.M., in the presence of a number of medical gentlemen of this city, and kindly and very ably assisted by my former preceptor, Dr. Jo. C. Hutchison, of Brooklyn, N. Y., the operation was commenced by making a straight incision one inch and a half in length in the median line, midway between the umbilicus and pubes, carefully dissecting down to the peritoneum, arresting all hæmorrhage before opening into the cavity of the abdomen.

The hands of two assistants were applied on either side of the abdomen to make firm pressure, when the peritoneal cavity was opened, and about two quarts of serum allowed to escape.

A large full-sized steel urethral bougie was then passed around the tumor to discover if any adhesions existed, after the manner recommended and practised by Dr. E. R. Peaslee, of New York. One slight adhesion to the omentum was found above, as was anticipated, as there had been evidences of inflammatory action a week or so previous to the operation.

Having decided to remove the tumor, a large full-sized *horse*-trocar was then plunged into the tumor, and a thick ropy fluid drawn off. The trocar, although larger than is ordinarily used, was not large enough in calibre to draw off the contents of the tumor readily; it being of such heavy consistency the operation was necessarily very much delayed, and at least three-quarters of an hour were consumed in freeing the tumor of its contents.

It being impossible to remove the tumor through the small opening made, owing to its partially solid nature, the incision was enlarged to six inches, so that by carefully rolling the tumor from side to side it was removed with the portion of omentum attached; this was separated by tearing. The bleeding from the torn vessels in the omentum was considerable, and as cold water and styptics would not arrest the hæmorrhage, fourteen ligatures of fine waxed saddler's silk were applied, the ends of the ligature cut close, and the omentum returned.

The pedicle of the tumor was next examined, and found to be short, thick, and very wide. Simpson's clamp was applied close to the tumor, and the latter removed by the knife;* the abdominal cavity was then *thoroughly* sponged out, removing considerable coagulated blood, and some of the contents of the tumor that had flowed over into the pelvic cavity; the sponges must have been introduced into the cavity of the abdomen at least twenty-five times, and no evil results followed, and certainly we would have looked for trouble had we closed the cavity of the abdomen *without* sponging, as is recommended by a number of operators.

Attempts were then made to coaptate the edges of the wound, the clamp lying across the lower part of the incision. This procedure was found impossible, owing to the great width and thickness of the pedicle, so it was treated after the manner recommended by Tyler Smith, of London, and practised with great success by himself, Peaslee of New York, and others, viz. a double ligature of strong saddler's silk, waxed but not twisted, was passed through the pedicle, each half tied around one-half of the latter, the ends cut close, and the pedicle put back into the abdominal cavity. The edges of the wound were then brought together with six silk sutures, which did *not* pass through the peritoneum, but took up the fascia transversalis and connective tissue; wide strips of plaster were then placed across the wound, then over the whole abdomen a flannel compress, previously dipped in hot water; this covered with oiled silk completed the dressing. The patient was then given a full dose of McMunn's elixir of opium, and placed quietly in bed.

Saw patient at a quarter past seven in the evening; pulse somewhat revived; was uneasy and restless; gave twenty-five drops of the elixir of opium; introduced catheter, and removed four ounces of urine. 8 A.M. following morning.—Pulse 26 to the quarter;, took twenty-five drops of the opium at 9 o'clock last evening and at midnight; vomited some in the night, and was troubled, more or less, with hiccough; gave thirty drops of the opium before leaving, as she complained of some pain. 1½ P.M.—Pulse 115 and small; skin hot and dry; great thirst, for which powdered ice is allowed freely; took twenty-five drops before leaving; irritability of stomach continues. 3½ P.M.—Patient

* The temperature of the room throughout the period taken to perform the operation was between 80° and 90°, the atmosphere of the room being kept moist by the evaporation of boiling water.

* Weight of tumor, with contents, thirty-seven pounds. It was the common cystic tumor, and therefore needs no description.

about the same; to have lime-water with the white of egg for vomiting.

Wednesday, A.M.—Much prostrated, but very much better than yesterday; skin and tongue natural; twenty-five drops of opium given, and weak chicken-water. 3 P.M.—Twenty-five drops more given; has taken chicken-water with relish.

Thursday, 9 A.M.—Pulse 130 to 140; skin soft and natural; drank a large quantity of cold water at once in the night, which caused violent vomiting of a green and intensely acid fluid; passes her water unconsciously. 4 P.M.—Pulse 140 and weak; skin and tongue natural; passes a great deal of flatus. *Thursday*, 8 P.M.—Pulse 120 and weak; has thrown everything that has been given her from her stomach. Whiskey and water in small quantity, with quinia gr. i., every two hours.

Friday, A.M.—Decided improvement; pulse 120 to 130; did not vomit after taking quinia and whiskey; gave injection of whiskey with chicken-broth, and opium by the mouth, gtt. xxx.; rearranged bed, and left patient sleeping.

Saturday, 18*th*, A.M.—Last night the most comfortable since the operation; pulse 120; gave injection of beef-tea with whiskey. 8 P.M.—Had a regular intermittent chill this afternoon; quinia to be given largely; whiskey and beef-tea per rectum.

Sunday, 19*th*, 10 A.M.—Pulse 120; skin moist and natural; tongue looks natural and well; takes quinia gr. i. every hour; whiskey, with mutton-broth for nourishment; examined wound, and removed all the strips of plaster, and two of the sutures; wound looks well; union taking place by first intention.

The day following, removed another suture; had another chill; increased dose of quinia.

Tuesday, A.M.—Patient a little uncomfortable; pain in lower part of abdomen; upon examination, proved to be a small superficial abscess in the lower part of the wound; applied small hop poultice covered with oiled silk; still passes water freely and without assistance. 9 P.M.—Examined wound, and found that the abscess had discharged its contents—a dark and very offensive fluid—through the orifice made by the lower suture; feels more comfortable now that the bowels have moved.

Wednesday, 22*d*.—Very comfortable to-day; removed the hoop support, and allow patient to take any position she desires.

Thursday.—Probed abscess, and find that it does not communicate with the abdominal cavity.

Friday, 24*th*, eleventh day.—Sat up in bed for the first time since the operation. Pulse 120 and of full strength; eats with relish whatever is given her; discharge from abscess less than heretofore; considerable hardness about the wound on right side; to be painted with tr. iodine.

Saturday, 25*th*.—Wound open below, which I have probed, and find that it does not communicate with the cavity of the abdomen, although the probe will readily pass down in a straight line to the depth of three or four inches. 8 P.M.—Gave injection.

Sunday.—Injection provoked an operation, which gave relief.

Monday.—Applied hop poultice to the hardened swelling in the abdominal walls.

Wednesday.—More comfortable since the poultice has been applied to the abdominal swelling.

Thursday, 30*th*.—*Decidedly the best day yet*. Tongue and skin natural; pulse 120; appetite returning; eats with relish whatever is set before her; bowels have not moved in three days; discharge from fistulous opening increased; hardness disappearing.

Friday, Dec. 1.—Bowels not having moved, ordered mild aperient. *Evening*.—Bowels have moved; sat up half an hour to-day.

Saturday.—Pulse 100, for the first time since the operation; wound not discharging much; hardness fast disappearing.

Sunday.—Found patient sitting up in bed, eating mutton-chop with relish; said she never felt better in her life.

Monday.—Severe pain in head; to discontinue the use of quinia, and take tr. ferri mur.

Tuesday.—Pain ceased upon leaving off the quinia, and is now quite bright; has been up two hours, and walked across the room without assistance.

Sunday.—Still complains of pain in the left groin, aggravated by movement of the bowels, which are constipated; to take ol. ricini ℥j.

Monday.—Found patient up and walking about the room, feeling well every way.

Thursday.—Found patient hard at work; says she suffers with pain in the abdomen, more or less severe, all the time; probed wound to the depth of three or four inches; discharge slight; hardness about the wound returning; applied iodine ointment, and advised patient not to work, but says she is obliged to, as her children have left her to "live out."

Tuesday, 26*th*.—Patient remains up all the time and works hard; not so much pain in abdomen; hardness somewhat disappearing; continues the ung. iod. and hop poultice.

Saturday, forty-third day after the operation.—Does not suffer so much pain; hardness about wound less; discharge increases; appetite good; is gaining in flesh and strength daily; altogether feels as well as ever she did.

January 4.—To-day her husband has met with an accident (fracture of the leg) which will confine him to the house and *bed*, the *latter* to her *exclusion;* they are hard-working people, living in limited quarters, and depending upon his health and strength for daily support; being deprived of any assistance from her children, they being young and away from home, all the care and duties will devolve upon her to her great disadvantage.

February 1.—As I anticipated, the hard labor and disadvantages of limited means of support have told greatly upon her health, strength, and spirits, and she is fast losing flesh and strength; she suffers untold agonies from the hard swelling in the abdomen, which has greatly increased in size and hardness; the discharge from the sinus is little or none; and no fluctuation can be discovered at any point of the swelling, but it is uniformly *hard* and *very* sensitive to pressure, no matter how lightly applied; the enlargement is mostly upon the right side of the abdomen, in the neighborhood of the umbilicus; it seems to involve the walls of the abdomen, which must be greatly thickened and firmly adherent to viscera below, as its movement is limited. She has no appetite whatever, and takes but very little nourishment of any kind; pulse 120, but not strong; anodynes have been given largely, but procure little rest. In a few days two or three openings made their appearance, in the line of the incision, through which pus flowed quite freely; this gave her immediate relief, but she had not the power to rally, and died of exhaustion, April 7, 1866, having survived the operation five months and one week.

A *post-mortem* was at first refused, but afterwards obtained; and the following is the condition of things as found upon examination, forty-eight hours after death: Rigor mortis well marked; symmetry of abdomen almost perfect; some discoloration about wound; three fistulous openings, lowest pointing downwards, two upper

pointing backwards and to the right; fair deposit of adipose tissue; adhesions below site of cicatrix, and above for three inches, and extending over whole abdomen, more firmly adherent over right side; abdominal wall nearly two inches and a half in thickness; left parietes thicker than normal, probably one-half as thick as opposite side; peritoneum adherent over whole surface of abdomen, and at least one inch in thickness, corresponding to the centre of the enlargement, and gradually thinning as you digress from this point; omentum adherent to the stomach, as were also the intestines; mesentery thickened throughout whole extent; glands very much enlarged. At the bottom of lower sinus was found one of the double ligatures, which was applied to the pedicle, *detached*, the other slightly held by a mere thread of tissue; the stump of the pedicle *had not sloughed*, but was attached to the uterus, at one point, by firm adhesion.

Uterus perfectly normal; right ovary enlarged and injected; descending colon normal; and there was no evidence of inflammatory action perceptible in region of pedicle; no adhesion of any kind in this locality.

The mass which formed the hardened tumor consisted of thickened abdominal wall, and beneath abdominal wall of *peritoneum*, *omentum*, and *intestines* closely agglutinated together.

The ligatures upon the omentum were so *very small* that it was impossible to find them, although thorough search was made.

Ovariotomy, although no longer considered an uncommon operation, may still be considered in its infancy, and whatever seems likely to improve any of its steps is certainly worthy of investigation and trial.

The plan of dealing with the pedicle is still in a transition state, and deserves all attention from the hands of operators.

The various modes of procedure are too well known to require repetition here, each operator claiming superior advantages for his over some other method of operating.

The plan recommended and practised with such *excellent* success by Tyler Smith, of London, and Peaslee, of New York, was followed in the case before us, with not such success, we must confess, as we would have wished for or anticipated.

It is claimed by the supporters of this method of operating, *that no slough of the stump of the pedicle* takes place, but that the ends become shrunken, and the ligature, of whatever material used, becomes imbedded and finally *encysted*.

Although what is claimed by its supporters was *partially* verified in this case, still I am led to believe that this is not the most safe and promising mode of procedure, even in cases where the pedicle is short and wide.

It is true that in the present case it was demonstrated that the stump of the pedicle *did not slough*, but became *shrunken;* but in lieu of the ligatures being *encysted*, they were found lying at the bottom of the fistulous track, one *loose*, the other held by the mere *adhesion* which had formed between the end of the stump and the uterus. *

It is impossible to say how long this fistula had communicated with the ligatures upon the pedicle; may it not have been from the time of the appearance of the small abscess which first showed itself on the tenth day? Surely those threads of silk must have been a source of great irritation, as nature was putting forth her best efforts to rid herself of them through the fistulous opening. The ligatures upon the omentum (fourteen) were no doubt the cause of much mischief; and I shall always regret that I did not include the whole bleeding surface of the omentum in one ligature and fasten it in the wound.

I think the method of treating the pedicle that promises the greatest results is that which simply secures the pedicle with a strong silk ligature and fixes it in the lower corner of the wound. Should the pedicle be a slim one, a *single* ligature, tied tightly around once or twice, will suffice; on the other hand, should the pedicle be wide and thick, it should be tied in two halves, and then pinned in the lower corner of the wound with long, stout hare-lip pins. This is the method now almost exclusively practised by Washington L. Atlee, of Philadelphia, who no doubt has had more to do in this particular branch of surgery than any surgeon at home or abroad. It will be remembered that he has been one of the strongest supporters of the use of the clamp; and now, after an experience of over one hundred and thirty-five operations, during which time he has experimented with the various modes of treatment, he declares this to be the most simple and least objectionable of all the methods heretofore described. *

Let us hear from other operators on this all-important and interesting point, for the plan of treating the pedicle, as practised in the case before us, is fast gaining ground, especially in this country; and if other methods can show better results, they should certainly be made known to the profession through this or some other of our valuable journals.

* It has been demonstrated, in two or three other instances, that the stump of the pedicle had not sloughed, but its vitality was preserved by a bond of union with the uterus. This is an important fact, and a strong argument in favor of this mode of operating.

* The priority of this mode of operating belongs, I believe, to Dr. Thomas Addis Emmet, of New York city.

Original Lectures.

CLINICAL LECTURES

UPON

DISEASES OF THE GENITO-URINARY ORGANS,

DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK,

By W. H. VAN BUREN, M.D.,
PROF. OF ANATOMY, ETC.

Lecture III.

Enlargement of the Prostate.

February 28, 1866.

There is an old man below stairs with retention of urine, whose extreme feebleness induced me to recommend that he should not be subjected to the effort of coming up to the theatre; but as I find his retention is due to enlargement of the prostate gland, I shall make his case the subject of a few clinical remarks; as I promised, when we were studying the anatomy and surgical relations of this organ, to refer at another time to its diseases. I found the patient sitting in a crouching position, leaning somewhat forwards; and in answer to my question, "What is the matter?" he complained of "constant pain in the lower part of his belly and across his back." There was a strong smell of stale urine exhaled from his clothing; and on more thorough physical examination, I found a distended bladder rising to within three finger-breadths of the navel, and a rounded, bulging, hardish tumor occupying the situation

of the prostate, and feeling, from the rectum, about the size of a billiard-ball. I asked how long since he had passed his water, and received for answer that his trouble was "altogether of another sort," for that he was passing his water "too freely entirely;" indeed he would be "very glad if it could be stopped from coming," whether he would or no. I introduced a catheter very slowly and gently, and drew off the urine I now show you; it is high-colored, muddy, about twenty-seven ounces in quantity; and its odor—which I wish you particularly to notice—is what the books call "fetid and ammoniacal," distinctly suggestive of decomposition. The litmus-paper, previously reddened by acid, has its blue color promptly restored when dipped into it; and you will find that when this slip of litmus-paper, thus restored to its blue color, has dried, it will be red again; thus showing not only that the urine is alkaline, but that its alkalinity is due to the "volatile alkali," *ammonia*, which will evaporate and disappear as the paper dries.

I have denominated this a case of retention of urine, and correctly, as the event proved; but the patient was evidently of another opinion. He was infinitely surprised to see so large an amount of urine evacuated from his bladder, and had no idea that it was thus over-distended. He will also be surprised to find himself relieved from his pain "in the lower part of his belly and across his back," which will be the case until the bladder fills up again, in eight or ten hours; and meanwhile his incontinence or involuntary dribbling will be suspended.

Here is a point of great clinical importance which I should be glad to impress upon you before we proceed further, viz. the liability of overlooking the existence of retention of urine, and even of a largely over-distended bladder, in cases of incontinence, or involuntary escape of the urine. The misapprehension that this patient labored under is not an infrequent occurrence with patients similarly situated; I meet with such cases constantly. And the mistake is not confined to patients; the physician himself often falls into the same error. The constant gushing of the urine at short intervals, and sometimes by voluntary pressure by the abdominal muscles, seems to be incompatible with the idea of retention; and yet that this is actually the fact in the great majority of cases of incontinence of urine in the adult, all surgeons of large experience will tell you. Accumulation of urine in the cavity of the bladder, in consequence of the gradually increasing obstruction to its free escape by an enlarging prostate or a contracting stricture, takes place almost imperceptibly; the calls to pass water become more and more frequent, and at each effort less urine is voided, but more remains behind which the bladder is unable to expel. This increasing effort, with diminishing result, terminates sooner or later in involuntary overflow, which often happens for the first time during sleep, and then the patient congratulates himself that he is relieved; but on close inquiry, you will find that the previous frequent and rather urgent sensation of desire to evacuate the bladder has gradually merged into a dull, heavy, and constant sense of distress in the hypogastrium, pelvis, and back, *which the patient generally does not recognise as a desire to pass water.* Meanwhile the muscular tissue, which enters so largely into the structure of the walls of the bladder, has lost its contractility from the over-distension, and the condition known as "atony" of the bladder has taken place. This atony, from over-stretching, is probably coincident with the subsidence of the urgent desire to urinate; and thenceforward the distension goes on, as in a comparatively insensible sac, until its limit of dilatability is reached, and resistance is greater in every portion of the surface of the bladder than at its outlet, when incontinence or dribbling commences.

Let me urge you, then, in every case of involuntary escape of urine, no matter what the patient's view of his case may be, to bear in mind the probability of overflow from an over-distended bladder; expose his abdomen, estimate its prominence, and feel it carefully, employing percussion over the hypogastrium; and, unless you can press your fingers deeply into the cavity of the pelvis above the pubes, do not leave the patient until you have introduced a catheter into the bladder, if possible to do so.

And now let us return to the case of our patient, and examine into the mode of invasion of his disease, his condition at present, and his future prospects.

He is a weaver, sixty-one years of age; says he has always been healthy, and seems to have possessed a good constitution. For the past three years he has had trouble in passing his water; his calls have been more frequent than natural; he has been obliged to get up at night to urinate, latterly as often as every hour; not quite so frequently during the day. In attempting to urinate he is compelled to wait a minute or two, sometimes longer, before the water will commence to flow; and the stream, when it comes, is thin and small, is expelled with less force than natural, as well as in diminished volume and by spirts. The quantity evacuated at each effort is small; scarcely as much as a wine-glassful—generally much less. Latterly it has been muddy in appearance, and has had a strong smell. Once or twice whilst straining, which he feels disposed to do almost always, he passed a little blood—perhaps a teaspoonful. Straining does not seem to make the water come more freely; and for the last three months he does not remember ever to have experienced the natural sensation of entire relief after urinating. He has had more or less pain in the loins and between the hips for several years; has never had an entire stoppage of his water, but sometimes it has almost refused to flow. This pain of the loins and hips has lately—say for the last month—been aggravated; and he has suffered, in addition, a sense of constant uneasiness, fulness and distension in the lower part of his belly. The constant saturation of his clothes with the urine, already decomposed and offensive from retention in the bladder, adds greatly to his distress. In many cases eczematous inflammation of the thin skin of the penis, scrotum, and groins, is a serious addition to the sufferings of a patient with incontinence of urine. The unrelieved distress, and wearing pain, and disgusting odor, causing loss of appetite and sleep, explain the weakness and emaciation of our patient, and account for the frequency of his pulse, which is about 100 in the minute. There are also other causes at work, which explain still further his failing physical condition, in the progressive disorganization which is going on in the mucous membrane lining the bladder, ureters, and the pelves of the kidneys. These we will notice more particularly when we come to consider the morbid changes in the urinary organs which have produced all the symptoms I have just detailed to you.

We have now before us the patient's previous history and his present condition, and the diagnosis readily follows. My physical exploration demonstrated the existence of a distended bladder and an enlargement of the prostate which surrounds its neck; and experience teaches us that the latter condition is by far the most frequent explanation of the former symptom in a man sixty-one years of age. Perhaps it would be as well to ask ourselves—What else could it be? What other morbid condition is capable of giving rise to a group of symptoms similar to these? This is called the "method

of diagnosis by exclusion," which every well educated surgeon should be ready to adopt in a case admitting of doubt; and it involves a familiarity with all the other known diseases liable to affect the organs involved, which could possibly give rise to the same or similar symptoms. To proceed thus: *stricture of the urethra*, the disease which most frequently obstructs the course of the urine, is excluded by the fact of the passage of a full-sized catheter without difficulty into the bladder; and *Hæmorrhage into the bladder*, by the fact that urine, and not blood, flowed through the instrument.* *Paralysis of the bladder*, a condition which I have no doubt you have already thought of in connexion with this case, I believe never occurs except as a consequence of injury to the spinal chord, or obvious disease of the nervous centres. I would beg you to be especially careful not to confound *atony of the bladder from over-distension* with *paralysis* of that organ. In *atony*, the muscular tissue is at fault; in *paralysis*, the lesion is in the nerves, and I may add, not the nerves of the bladder only, but always as a symptom of central disease. Of *tumors* in the region of the prostate which could obstruct the flow of urine—aside from hypertrophy of the prostate itself—we might encounter: first, *inflammatory;* second, *benign;* and third, *cancerous tumors*. The first belong to an earlier period of life, and are sufficiently well characterized by local heat, swelling, and tenderness, and an appropriate antecedent history, to render their recognition and exclusion a matter of little difficulty. I have seen abscesses in and around the prostate, generally associated with gonorrhœa or stricture, on several occasions give rise to retention of urine; but the nature of the obstruction was recognisable by the evidences of previous or existing inflammation, perhaps by a feeling of fluctuation in the swelling which could be detected by the finger in the rectum. And here, to prevent any misapprehension, I would say emphatically, anticipating in some degree my subject, that hypertrophy or enlargement of the prostate, the disease so common in old men, that which our patient is suffering with, and which we are at present studying, is not an *inflammatory* disease; in our patient's language, in reference to his retention of urine, it is "altogether of another sort." To return to our diagnosis by exclusion: I have never met with a case of retention or stoppage of the flow of urine caused by a *benign tumor* in or near the prostate. We encounter cysts, and also concretions, in the organ itself; fibrous or fatty tumors might grow here so as to impede the flow of urine; but as said before, I have never seen any case of the sort. Finally, *malignant* or *cancerous tumors* not unfrequently are developed in the pelvis, or its bony walls, which in their growth interfere with the functions of the bladder; but such tumors could not fail to be distinguished from that due to enlargement of the prostate itself; this is not so true of cancer developed in the prostate, or in the walls of the bladder at its base, of which I once saw a case which caused one of our most acute physicians to hesitate in his diagnosis.

A gentleman of sixty-five, who had suffered for more than a year with obscure symptoms referable to his bladder, with a straw-colored complexion, a frequent pulse, and great languor and debility, was passing bloody urine, with pain and difficulty, at short intervals. There was no stricture, and the finger in the rectum came in contact with a large, soft, solid hemispherical tumor in the situation of the prostate. It was a case which, by the touch alone, might have been readily mistaken for hypertrophy of the prostate. But there was something in the patient's aspect that impressed me with a strong suspicion of cancer; and, by careful exploration, I thought I could make out with the finger the outline of the prostate presenting its normal dimensions. This induced me to decline the introduction of an instrument into the bladder, a precaution I have learned always to observe where there is reason to suspect cancer of that organ, for I believe it is likely to do harm by increasing pains and provoking hæmorrhage. I contented myself by taking some urine which the patient voided at the time of the visit; and in the sediment which it deposited, I found unmistakable evidences of the existence of that disease. A few months afterwards the patient died, exhausted by hæmorrhage, and I had an opportunity of examining the parts. The urethra and prostate were normal; but from the base of the bladder, its attachments extending from its neck to the orifice of the left ureter, which was occluded, grew a tumor the size of a small orange, the surface of which, where it was not ulcerated, resembled in structure a cauliflower. The tumor was examined microscopically by Dr. W. H. Draper, and its histological elements delineated; it belonged to the epithelial variety of cancer.

We have thus mentioned, I believe, all the diseases characterized by a tumor in the situation of the prostate, and liable to obstruct the flow of urine from the bladder; and no one of them corresponds accurately with the symptoms offered by our patient. On the other hand, all his symptoms point directly to prostatic enlargement; we are justified therefore in deciding that he has *simple enlargement* or *hypertrophy of the prostate*.

Before dismissing the subject of diagnosis in this affection, I should not omit to state to you that cases occur, and I think more frequently than surgeons suppose, in which the urine is seriously obstructed, and even arrested in its flow, by alterations in the shape of the prostate, which do not form a tumor recognisable by exploration from the rectum. These cases, for a knowledge of which I am indebted to Mr. Henry Thompson, of London, are often obscure and not easy to make out. Mr. Thompson denominates this variety of prostatic enlargement "centric hypertrophy." I have published recently some cases of this interesting form of disease, with remarks on its differential diagnosis, to which I refer you.*

Let us now inquire into the nature of the morbid changes of the prostate gland which have brought about such serious interference with the escape of the urine. To do this satisfactorily you must recall what I have recently endeavored to teach you in relation to the anatomy and functions of this somewhat mysterious organ. To me it is an exceedingly interesting organ, for the reason that we have recently found out much more concerning its nature and uses than was known to our predecessors.

You will recollect that it is irregularly conical in shape, its base surrounding the orifice of the bladder, and its apex projecting forwards and a little downwards, until it comes in contact with the triangular ligament of the urethra, surrounding and enveloping the first inch and a quarter of that canal—which therefore forms a tunnel through the so-called gland. This tunnel, known as the prostatic division of the urethra, is of greater diameter about its middle portion than at either extremity, and is hence also called the prostatic sinus. In the centre of its floor is a longitudinal ridge or crest—the *veru montanum;* and at the anterior extremity of the *veru montanum* you will recollect that I showed you a minute vertical slit, through which I introduced an ordinary probe, nearly half an inch, into a cavity shaped like a

* I have seen distension of the bladder by blood, with great distress and inability to evacuate its contents, in a gentleman of fifty-eight, who was suffering from cancer of the kidney. The same symptom occurs not very unfrequently from enlarged prostate; and I have also seen it in cancer of the bladder.

* *Vide* MEDICAL RECORD, Vol. I., No. 1, p. 1.

minute champagne bottle, and called the *utriculus*, or little uterus. The two seminal or ejaculatory ducts, converging from the base of the prostate where they enter its substance, lie imbedded in the lateral walls of this little cavity, and terminate by small orifices in either margin of the vertical slit which constitutes its mouth; and through these orifices the semen is poured into the prostatic sinus during the sexual orgasm. The substance of the prostate consists mainly of smooth, unstriped or involuntary muscular fibres; barely one-third of its bulk, according to Kölliker, being made up of glandular follicles, which pour their secretion, in the form of a glairy transparent mucus, through numerous small ducts, into the floor of the prostatic sinus. The great preponderance of muscular tissue in the substance of the prostate has induced Prof. Ellis, of the University College of London to assert that it is incorrect to call it a gland. And, if you look at it as a muscular organ, with the little cavity of the utriculus occupying its centre, you will perceive at once the significance of the term *utriculus*, and at the same time the reason why this little cavity, surrounded by thick walls of unstriped muscular fibres, is regarded by the best modern anatomists as the analogue, or answering part, in the male, of the uterus of the female.*

This recognition of the muscular rather than the glandular character of the prostate is in entire accordance with what I believe to be the true function or use of this organ, viz. to expel the seminal fluid when it accumulates in the prostatic sinus and stimulates by its presence the walls of that cavity; just as the ventricles of the heart contract upon the blood when that fluid distends their cavities, and, by a similarly sudden and forcible exertion of contractile power, expel their contents.

Now the analogy which the investigations of transcendental anatomy have thus unequivocally established between the prostate of the male, with its little central utricular cavity, and the uterus of the female, throws a flood of light upon the nature of that very common and hitherto obscure disease—senile hypertrophy of the prostate. These investigations have led directly and logically to the establishment of the pathological fact that the enlargement of the prostate after middle life in the male is a change identical in its nature—anatomically and pathologically—with the development of fibrous overgrowths so commonly encountered in the uterus of the female. Microscopical examination of the structure of the hypertrophied prostate shows us that its increase of size is due to the abnormal addition, to its bulk, of organic muscular fibre, the same tissue of which fibrous tumors of the uterus have been shown to consist, and which led Vogel to assert that the latter disease should be properly termed "hypertrophy of the uterus." This newly formed tissue is variously distributed, both in uterus and prostate; sometimes it involves the whole organ in an uniform overgrowth, increasing its size, but not altering its shape; in other cases, and more frequently perhaps, it is irregularly distributed, aggregated into tumors, so as to materially alter the shape of the organs. And now, leaving the uterus and confining our remarks to the prostate, you will readily perceive how, from the intimate relations of this latter organ to the outlet of the bladder and the commencement of the urethral canal, its increase in size and alterations in shape would be likely to constitute an obstacle to the ready escape of the urine by blocking up the orifice at the neck of the one, or by encroaching upon the calibre of the other.

* This view is supported by the names of Weber, Hushke, Bischoff, Kölliker, Simpson, Allan Thomson, and others of equal note.

And this is precisely what happens; this is what gives its importance to the disease we are studying. In itself it is not a fatal disease; not even a serious one, for these fibrous over-growths, essentially benign in their nature, in most cases reach the limit of their development early, and afterwards become stationary, or even tend to shrink. If it were not for the interruption in the functions of the organs with which it has such close anatomical relations, we should probably hear very little complaint from patients with enlarged prostates. Apart from its influence upon the bladder, the disease is not a painful one, and I cannot say from my own observation that the function of the organ, or even the performance of the sexual act, is very materially influenced by its existence. I have found the prostate considerably increased in size in very vigorous men, who did not seem to be in any way incommoded by it when I have examined the rectum for another purpose. You will understand, then, that *the symptoms which lead us to suspect the existence of this disease always come from the urinary organs.* I have never seen any interference with the function of the rectum produced by it, and do not believe in the alteration in the shape of the fæces, mentioned by some authors as one of its symptoms.

We rarely meet with enlargement of the prostate in men under fifty years of age; and yet I have seen symptoms of urinary obstruction result from it as early as forty-seven. On the other hand, do not suppose that every old man must necessarily have an enlarged prostate. Sir Benjamin Brodie's well known opinion on this subject has been proved, in the advance of knowledge, to have been incorrect.* After examining the prostates of a large number of men, of fifty and over, after death, Mr. Henry Thompson concludes that "enlargement to a notable extent, producing symptoms, exists in only about twelve per cent." He adds, "It is not, therefore, a natural or necessary concomitant of age. It is, on the other hand, a complaint which the very large majority of elderly men escape."†

As to the causes which produce this disease, I am unable to give you any information. Abuse of the sexual organs would suggest itself as a very probable cause; but my experience has not confirmed this. In fact, I have searched in vain for a rational explanation of the ætiology of this affection, and think it wiser to confess ignorance; so that we are thus cut off from the advantages to be derived from the employment of preventive medicine. The most sensible view of the subject is that which regards this tendency to overgrowth, in both uterus and prostate, as a "structural necessity;" as the mode of growing old and wearing out, which is natural to reproductive organs made of this sort of tissue, just as we see the trunks of aged trees become gnarled and knobby.

Antidotes for Strychnia.—Prof. R. Bellini, after conducting a long series of experiments on poisoning by strychnia and its salts, arrives at the conclusion that the best antidotes are tannic acid and tannin, chlorine, and the tinctures of iodine and bromine. These, he maintains, do not act chemically on the poison, but only through the astringent effects produced by the acid on the mucous membrane of the stomach.

* "When the hair becomes grey and scanty, when specks of earthy matter begin to be deposited in the tunics of the arteries, and when a white zone is formed at the margin of the cornea, at this time the prostate gland usually, I might perhaps say invariably, becomes increased in size."—*Lectures on Diseases of the Urinary Organs, by Benj. C. Brodie*, London, 1849, p. 163.

† The Enlarged Prostate, its Pathology and Treatment, with Observations on the Relation of this Complaint to Stone in the Bladder. By Henry Thompson, F.R.C.S. London, 1858, pp. 65 and 66.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, OCTOBER 3, 1866.

DR. JAMES ANDERSON, President, in the Chair.

A CASE OF CONSTRICTED VAGINA.

DR. POST stated that about one year ago a young married lady, who was unable to have sexual intercourse with her husband, in consequence of the great pain attendant upon the act, had applied to him for relief. Upon examination, he found her vagina so much contracted that the finger could not be introduced without distress. Inasmuch as great benefit had been derived in an analogous condition of the anus by the introduction of both thumbs and the forcibly stretching apart of the walls, he applied the same principle in this case, during anæsthesia by ether. Immediately after this procedure he was able to introduce four fingers without difficulty. But this did not entirely relieve her, and this operation of mechanical dilatation was repeated more than once during intervals. He might mention, also, that there was present an eroded uterus, together with painful and difficult menstruation, which necessitated the use of the speculum, as well as occasionally the bougie. She finally became pregnant, but miscarried about the fourth month, and is now very much improved in every respect.

A CASE OF URÆMIA.

DR. GRISCOM during the past month was called in attendance upon a case of supposed uterine trouble. He found the patient, in her thirty-ninth year, with an enlarged uterus, due to congestion and not to pregnancy; to his surprise he also learned that not more than two ounces of urine had been voided in two weeks. There had likewise been about a year back a total suppression of urine for a week, but from which she recovered without any unpleasant sequelæ, under the treatment of another physician. When he saw her the mind was clear; there was no coma, etc. At last, during the last four days of her life, she was blind, although she partially recovered her sight two days before death. There was no œdema or anasarca, and no pain, only a little tenderness over the abdomen; and yet this lady lived three weeks without any disturbance of the nervous system, unable to pass anything of consequence except pure pus, which for the last few days followed the catheter. The autopsy showed the left kidney enlarged, totally disorganized, the seat of two immense abscesses, and containing in the pelvis a rough calculus about the size of the end of the thumb. The pus could be traced through the ureter down to the bladder itself. The right kidney exhibited an extraordinary amount of false membrane, the result of an inflammation, which would explain the previous suppression; in fact, there was no trace of the original arrangement discoverable. There were also abscesses in this. In reply to a question, Dr. G. stated that the patient had never passed a calculus.

A PROTRUSION AND CONSEQUENT NECROSIS OF A PORTION OF TWO RIBS.

DR. FINNELL related the case of a boy run over by a wagon, who, on being brought to a physician, was pronounced to have a fracture of the third and fourth ribs, for which he applied a firm bandage. At the end of four weeks, the mother, in removing the bandage in accordance with the physician's directions, discovered a blackened mass protruding through the skin, to the extent, in one case, of an inch, and in the other of an inch and a half. These being necrosed portions of each rib, he clipped them off, and the boy recovered under very simple treatment. The case was one of diastasis, or a separation of the shaft from the cartilage, which had been mistaken for a fracture. The over-tight bandage forced the bones too much forward; they in turn ulcerated their way through the integument, and so became necrosed.

A CASE OF ALBUMINURIA NOT FOLLOWED BY PUERPERAL CONVULSIONS.

DR. GARRISH had attended some months ago a lady during her accouchement, whom he first saw in the eighth month of her pregnancy. She was aged twenty-two; had general dropsy to the extent of nearly concealing her eyes, so great was the puffiness; her limbs were enormously distended; she had vertigo, imperfect vision, and her pupils were dilated to their fullest capacity; in short, she could discern the presence of an object only by its shadow; her urine, after the usual tests, was found loaded with albumen. Anticipating puerperal convulsions, he ordered sal rochelle every night for three weeks, beginning with one drachm doses, to be decreased *pro re natâ*. It was about this time, too, that an acute erysipelatous inflammation of the right leg was noticed, which increased his apprehensions; but to his surprise and delight the patient, at the close of her term, was delivered of a male infant, after a six hours' labor, without any untoward symptom.

DR. POST submitted that he had seen not a few well marked instances of albuminuria during pregnancy, which did not eventuate in convulsions.

DR. BIBBINS stated, in regard to the other complication mentioned, that he had opportunities of observing that, when erysipelas was present, puerperal convulsions did not follow as a matter of course.

THE BROMIDES OF POTASSIUM AND OF AMMONIUM IN INSOMNIA.

DR. O. WHITE, when summoned to the bedside of a lady, found her suffering from delirium tremens in its most violent form. Having known by a previous experience in her case that she would not tolerate opium in any of its forms, he resorted to the valerianate of zinc and certain other well known antispasmodics, but, as the sequel proved, without effect. He then tried the following formula: ℞. Potass. bromid., ammon. bromid., *āā.* ʒ iss.; aquæ destill., f. ℥ j.; solve; cap. min. coch. quâque hora pro re natâ. After the third dose, which was taken at one o'clock A.M., she fell into a gentle slumber, and at the end of four and a half hours awoke a little refreshed, but with the more violent manifestations of her disease still present. Through a misunderstanding of his directions, the medicine was then omitted, but after its resumption on Saturday (one o'clock P.M.), the third dose procured an eight hours' sleep, so that upon the Sabbath her condition was much improved; her tongue could be protruded without much tremor; her pulse was nearly natural, although the illusions had not yet entirely disappeared. The doses were then given at noon and bedtime with the most gratifying results, for after nine hours of undisturbed rest she awoke in her usual condition of robust health.

DR. G. M. SMITH called attention to the principles laid down by Dr. William A. Hammond, in his brochure upon insomnia, that the potass. bromid. was suited to the sthenic variety of delirium tremens only.

DR. GARRISH adverted to a case published in the *Medical and Surgical Reporter*, where the insomnia was effectually subdued by the potass. bromid. alone.

DR. BULKLEY had exhibited the salts in combination, with good results, in doses not quite so large as those of Dr. White (eleven and a half grains), but say seven or

eight grains each. He began with their administration in the form of powder, but their deliquescent properties decided him now in favor of the aqueous solution. In reply to Dr. Garrish's query regarding the tinct. digitalis, now so much used, he tells us, in the continental hospitals, he would merely state that his views of the agent were not the most flattering—it had its day once before. He held that delirium tremens was, after all, essentially a self-limited disease, and in its treatment he withheld stimulants as much as possible. In fact, a great point in its cure was the ability of the stomach to retain a good substantial meal.

Dr. Van Kleeck alluded to the large doses of the potass. bromid. advised by Dr. Brown-Séquard, of from thirty to sixty grains.

Dr. Post had himself taken the salt in one drachm doses with good effect.

HOT-AIR FURNACES.

Dr. Griscom, in the course of the evening, read a brief, interesting paper upon the bad influences growing out of the use of the dry hot-air furnaces, which superheated the atmosphere by red-hot fire-pots, and described *Church's Moist Warm-Air Furnace*, now in course of introduction into his own dwelling.

The meeting then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Feb. 28 1866.

Dr. F. H. Hamilton, President, in the Chair.

COCCYGEAL CYSTS.

Dr. Buck presented two cysts removed from over the coccyx of a young woman aged 20. One, which was larger than the other, was subcutaneous; the smaller one being afterwards brought into view. The patient remembered to have had a lump in the region referred to since she was five years of age. Previous to her admission to the hospital last summer, it had increased rapidly, and became a source of discomfort and more or less suffering. It presented a fluctuating condition, and was opened, and discharged twenty-two ounces of fluid having the appearance of pus. After this was done the cyst rapidly contracted down, but remained open. Dr. Buck found her during his recent attendance at the hospital. On examination of the parts an opening was found in the situation referred to, and in the line of the axis of the body, capable of admitting the end of the finger; and upon stretching it, the edges were found to be cicatrized. The integument appeared continuous in the cyst; and the surface, as far as exposed, had the color of this tissue. This condition of things decided the necessity of dissecting out the cyst, which was done; and upon its removal it exposed the coccyx covered with its investment. A tumor, about the size of the last phalanx of the thumb, was also brought into view. This, after removal, proved likewise to be a cyst. The larger cyst was very thick, and its inner surface was studded with hairs about half an inch in length. An opening with a depressed margin was found in it; but whether this communicated with the smaller cyst, was not ascertained. The smaller cyst contained a substance white as chalk, and of the consistency of soft cheese. Dr. B. thought that it was not unlikely that it was a congenital formation.

Dr. Hamilton next presented a button of bone removed by the trephine, and gave in connexion a history of the case from the following letter which he had received:

TREPHINING FOR PUS WITHIN THE CRANIUM.

"Richmond, Kentucky, February 19.

"Dear Dr.—On the 4th day of November, 1864, I was requested to meet Dr. Jake White, Jr., and Dr. W. W. Jones, lately deceased, to operate upon J. B., a young carpenter, about twenty-five years old, to relieve compression of the brain produced by a blow received some forty-two days before. He was struck by a heavy navy pistol on the left side of the head, almost immediately over the frontal protuberance. The blow broke the skull, driving in the inner as well as the outer table of bone. He did not, as I was reliably informed, show any indisposition for twenty-one days after the reception of the injury. At the end of this time, while working at his bench, using his plane, he was suddenly and unexpectedly seized with convulsions. A physician was immediately called to see him, and, after being told about the injury he had received some three weeks before, found, on examination, the place of injury a little swollen and showing some signs of existence of pus. He pricked it with a lancet, when a few drops of pus escaped from the wound. The patient was working away from home, and upon being brought home in an almost insensible condition, Dr. White was called to see him. The Dr. pronounced the case one of depression of bone, in which he thought it necessary to use the trephine. Dr. Jones was then called in, and he contended that from the length of time since the injury was received, there certainly was no depression. After waiting some days, or perhaps weeks, it was decided to send for me, to bring the necessary instruments; in order if it were decided, after consultation, to operate, I might be prepared. I found the patient in a perfect state of coma; great restlessness and jactitation, pulse about forty per minute; skin cold; retention of urine; involuntary discharges from bowels; and a pale heavy-coated tongue. Upon making an examination of wound, I introduced into it the little finger of my right hand. It would pass to the first joint readily. I found one side of the bone depressed considerably, with a very sharp point pressing against the dura mater. We immediately decided to operate, as the only chance of saving the life of the patient. Upon making a crucial incision, I found that the edges of the wound in the bone seemed somewhat necrosed. I trephined the skull, taking out the piece of bone. I send you a bone ¾ to 1 inch in diameter. The dura mater seemed to press up in the opening made by the trephine, and upon examination I found fluctuation very perceptible. I used a sharp-pointed bistoury to prick the dura mater, which was very tough, to allow any discharge of pus, but to no purpose. We then proposed to make a free incision across and through the dura mater, the size of the opening in the bone. Dr. Jones accordingly did this; and, immediately, at least four ounces of dark coagulated blood and very offensive matter escaped from the wound; some of the brain matter also passed out with the rest. We immediately dressed the head by bringing together the flaps of scalp, applied a compress and bandage wet in cold water, gave the patient a large glass of wine and brandy, and waited for results. We expected, from the length of time since the reception of injury, the amount of coagulated blood and matter discharging from wound, and the seemingly great prostration of patient, that he would not probably live through the night. The operation was performed about 7 o'clock P.M., and by 1 o'clock A.M. the following day the patient almost suddenly aroused from the state of insensibility and coma, and called for something to eat. A hot cup of coffee was given him, and from that time he continued to improve rapidly; the only incident that

was new arising in the case being hernia cerebri, which from improper attention to wound, and stopping of dressing, etc., occurred several days after. But that was cut off with a sharp instrument by Dr. Jones, and the lime-water compress used on the wound. The patient soon after recovered and seemed as well as ever. I neglected to say that before we concluded to trephine, we tried the elevator, but found the bone so hard and immovable from the length of time since reception of injury, that it could not be moved; but that will show for itself on bone sent.

"Yours respectfully,
"R. C. Chinault."

Dr. Hamilton then remarked:—The specimen presented is a disc of bone which is little less than three-quarters of an inch in diameter. About one-third of its periphery was depressed, the inner table being apparently bent. It was hardly fair to suppose that a fracture of one margin of the portion had taken place and united, as only forty-two days had elapsed between the reception of the injury and the removal of the specimen. The specimen was interesting in several points of view: I. The man experienced no inconvenience from the injury, and remained well for many days. II. A few days preceding the operation he was suddenly attacked with convulsions, and afterwards became comatose and remained so for some time. III. There were certain indications presented to the surgeon of the existence of pus underneath the dura mater, and which were the presence of pus between the skull and the integuments, and the existence of convulsions with coma. IV. Upon these evidences he felt himself authorized in trephining, but when he reached the dura mater he did not find pus. It is difficult to explain, said Dr. H., why there should have been suppuration upon the outside of the skull, and not between it and the dura mater. In those examples in which suppuration occurs immediately underneath the skull, and between it and the dura mater, it is not unusual to find the external puffy swelling. That has been regarded, in fact, as the most precise indication as to the seat of the matter. The surgeon felt authorized by this usual sign at the seat of the injury to trephine, and fortunately he found at length pus in considerable quantity. The pus and blood amounted to about four ounces. Now it is apparent that there must have been a lesion of some blood-vessel under the dura mater at an early period, and yet there was no paralysis. The great interest of the case is, that the surgeon trephined for pus under the dura mater. It is not yet determined that we ought to trephine when we suppose pus exists between the dura mater and skull. Mr. Hewitt has said that to surgeons of the present day a sucessful operation for matter under the skull is almost unknown. This observation is incorrect, although it is certainly very rare to meet with a success when pus exists in this situation. As an example of successful operation for pus between the dura mater and skull, there was an instance during the last year in Bellevue Hospital, under the care of Dr. Stephen Smith, who, many days after the injury had been received, performed the operation indicated. But the class of cases to which this belongs is still more rare. I wish to call attention to the peculiar appearance of this portion of the bone (which gives the idea of its being bent), more especially as it is generally conceded that the inner table is the most fragile of the two forming the skull bone.

Dr Buck, in this connexion, referred to an instance of fracture of the skull which occurred at the New York Hospital. Some years ago, a patient was admitted to that institution after he had been beaten over the head. Recovering from the first effects of the injuries so far as to be able to take his seat at the table, he began afterwards to fall into a state of stupor, which went on progressing until it was complete. There was some febrile action accompanying this condition. The external wound was behind the left ear, pretty high up. The view taken of his case was, that suppuration was taking place within the cranium. His condition being considered a desperate one, it was decided to expose the part by a free incision. This was done, and a crack in the bone was brought to view, over which the trephine was applied. But nothing was found. A second application of the trephine was made in the immediate vicinity, and that allowed the escape of a certain quantity of pus. The patient afterwards gradually recovered.

"In my last attendance," continued Dr. Buck, "a remarkable instance presented itself. I found a stout, negro sailor in one of the wards, suffering from rheumatism, and noticing a bump upon his forehead about the eyebrow, I examined it. It was of a flattened form, somewhat elongated perhaps, covering a space about an inch and a half in length by three-quarters of an inch in breadth. The integument over it was movable. From the feel of the part there appeared to be an excavation of the surface of the bone. It had existed for a long time, but he did not regard it as a matter of any special moment. After having him under observation for some time, and he having been cured of his rheumatism, I proposed to remove the disease. The house-surgeon, under my direction, made a free incision through its long diameter, and opened into a cyst. It seemed to be an ordinary cyst, part of the contents of which was very consistent. He proceeded to dissect out the sac, and it was found that the bone was roughened underneath, as well as being excavated, and at the middle of this excavation there seemed to be an opening passing on deeper. At the bottom of this opening, which was about the size of a small pea, there appeared to be a fleshy growth of a greyish red appearance. A probe having easily entered this opening, I was determined to enlarge it, which I did by the rongéur, through the entire thickness of the cranium to the size of a ten-cent piece. This brought into view a substance which had the appearance of concrete pus, and on pushing a probe through this there presently gushed out a small teaspoonful of thick pus. Notwithstanding all this, the patient had not had the first symptoms of pus in that locality. Up to the time of the close of my service he was doing well. I saw him for the last time about a week ago."

Dr. Hamilton remarked that he had operated twice in similar cases under the suspicion that pus was present underneath the bone. His first case occurred many years ago. The patient, a man, had fallen upon the back of his head, and had received a concussion from which he recovered. At the end of four days he went down to his business, and then became suddenly unconscious. On the seventh day Dr. H. was called to see him, and found a puffy swelling in the neighborhood of the injury, and accordingly trephined the patient. On removing a disc of bone he found the skull cracked, but not depressed, and a certain amount of pus, not enough to flow, was also found upon the dura mater. The man survived the operation, however, but a few days, and the autopsy disclosed the fact that pus extended over two-thirds of the surface of the brain. In the other case the patient was a child who, after having received a blow upon the forehead, evinced no serious symptoms for many days. At length convulsions and strabismus showed themselves, and a puffy swelling was found in the neighborhood of the injury. On exposing the bone at this point, a thin scale of osseous tissue was found and removed. Thinking then that the indications that pus existed underneath the bone were plain enough to

justify further operative interference, a trephine was used. No pus upon the surface of the dura mater was found however, and it was not deemed advisable to open into that membrane. The patient died shortly after.

Dr. Post stated that he had an interesting case some years ago which he saw in consultation with Dr. Duggan. The patient, although struck with a slung-shot and somewhat stunned, was able to walk after the injury. He complained, however, somewhat of headache. He went on, occasionally complaining, until he began to have symptoms of encephalitis develop themselves, the delirium gradually giving way to coma, with hemiplegia of the opposite side. It seemed evident that there had been effusion under the point of the injury. A trephine was accordingly applied at this point, but no pus was discovered. Dr. Mott, who was afterwards added to the consultation, proposed to have a crucial incision made into the dura mater. This was done, and no pus being found, Dr. Post proposed to go deeper. This was at first, however, objected to. The patient's condition becoming afterwards evidently a hopeless one, an incision to the depth of half an inch was made into the substance of the brain, when there was a discharge of a grumous and broken-down material. There was no distinct discharge of what might be called liquid pus. The patient finally died, and at the post-mortem examination a large portion of the hemisphere of that side was found in a broken-down condition. Pus seemed to be infiltrated in that portion of the organ, there being no distinct wall to contain it. Dr. Post was in favor in this case of making an incision into the substance of the brain, on account of the experience which had been detailed by Velpeau, who saw a somewhat similar instance in consultation. This case was that of a priest, who, while officiating before the altar, was struck upon the head by a large wax candle which had fallen. A number of weeks after, while again officiating in the church, the priest lost his consciousnesss and was attacked with cerebral inflammation afterwards. The operation of trephining was performed, and the dura mater was also opened; but no pus being found, Velpeau urged an incision into the brain. He was overruled, however, by the other members of the consultation. After death it was found that a very slight incision into the part, as proposed, would have opened into an abscess.

Dr. Hamilton called attention to the specimen presented by him, in respect to that portion of its history which related to the curing of a hernia cerebri by excision. Taking it for granted that no case of real hernia cerebri ever recovered after such an operation, he concluded that it was simply an example of fungus cerebri.

Dr. Post was of the opinion that a number of cases of recovery from excision of the brain tissue had been recorded.

Dr. Buck confirmed this opinion by citing cases in his own experience. In answer to a question from Dr. Hamilton, he stated that there was no doubt in his mind as to the substance removed being true brain matter.

Dr. Hamilton remarked that in Circular No. 6, from the Surgeon-General's office, it is stated that all attempts to cure hernia cerebri during the war, by pressure or excision, proved fatal.

Dr. Buck stated that in his cases he had used pressure over the protruding surface by means of a piece of sheet-lead which exactly corresponded to the opening in the skull, several pledgets of lint, equal in thickness to the bone, being interposed. He remarked that he tied off successfully one hernia cerebri with a piece of twine.

Dr. Hamilton stated that he had reported two cases of hernia cerebri in children, in which the "let alone" treatment was followed out and was successful. In each case there was abundant suppuration.

The Society then adjourned.

Ligation of Subclavian.—Dr. D. O. Farrand reports a case of ligature of the subclavian artery (*Detroit Review of Medicine and Pharmacy*, June, 1866), which possesses some points of interest. The patient was a soldier, 36 years of age, who received a severe wound on the right shoulder by the recoil of a cannon which he was in the act of firing during an engagement in Missouri. About a week after, a tumor showed itself in the infra-clavicular region of that side, and afterwards continued to enlarge. After a resort to the simpler means of treatment, it was decided that the only hope for the patient was in the ligation of the subclavian. The patient was etherized and the usual operation performed; the aneurism needle was passed under the artery, and pressure being made at that point, controlled the pulsation below. The ligature was then tightened about one-fourth of an inch from the posterior border of the scalenus anticus; but notwithstanding that the operator had satisfied himself that the thread was tightly drawn and the vessel occluded at that point, he was surprised a moment afterwards to find the radial artery and tumor pulsating as strongly as before. In fact, the artery was felt pulsating three-fourths of an inch only below the ligature. A second ligature was passed at this point, and the pulsations below were then permanently arrested. Both ligatures were left *in situ*. The patient lived but six weeks after the operation, during which time he suffered repeatedly from secondary hæmorrhage, the last attack of which terminated his life. At the post-mortem examination, the divided ends of the subclavian were found separated nearly two inches; the cardiac end had healed perfectly, the original plug extending back three-quarters of an inch. The distal end was jagged, irregular, and presented no evidence of any attempt at a reparative process. The hæmorrhage evidently came from the distal end of the vessel. In conclusion, Dr. F. remarks: "No abnormal distribution was found; no new trunk had been included in a ligature, neither had the posterior belly of the omo-hyoid been tied, both of which accidents have happened to several celebrated operators; and the mystery remains as great as ever as to what I had tied the first time. We could only conclude that the first ligature had slipped. One thing, however, was found which mystified us not a little—the thyroid axis was absent. From the point where the subclavian left the innominata to the point of ligation, there were but three branches—vertebral, internal mammary, and the superior intercostal. That there had been a thyroid axis was easy to demonstrate, for the cicatrix on the subclavian was perfectly plain." The post-mortem, owing to certain circumstances, had been hurried: the absence of the axis was not discovered until it was too late to make any further investigations. The circulation in the arm had been established before the death of the patient.

African Fever.—The intermittent fever of Africa, which has proved so rebellious to the exhibition of quinia, has been cured by the electuarium of Lobstein, which is: ℞. Pulvis cinch., ℥jss.; Pulvis rhei, ʒ iv.; Ammoniæ hydrochl., ʒ ij.; Syrup. simplex, q. s.; M. Fiant bolo., N. XX. Four of these are taken daily, one hour apart, so that the last dose is administered one hour before the expected access. The remedy has been effectual in eight days. Good food and iron form, of course, part of the treatment.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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FOREIGN AGENCIES.

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NEW YORK QUARANTINE FOR 1865-6.

IT is conceded on all hands that our "Metropolitan Board of Health" has accomplished a great work since its organization last spring. If it has not done all that was expected, it has certainly done a great deal, and would have done more had not all kinds of obstacles been thrown in its way. It would seem as if all the courts and judges had conspired together to thwart and defeat all its measures. Injunction after injunction has been served upon its members, and they have been held personally responsible for pecuniary damages for suppressing the most offensive and outrageous nuisances. Under such discouraging circumstances it has made a very resolute fight, and, in the main, come off successful. In one line of its duty it has, however, failed, and this one of its most important spheres of action—we mean as regards the exclusion of Asiatic cholera from our city and country by a rigid and adequate quarantine. It is true that, after the disease had gained a foothold in New York, the labors of the "Board of Health" were energetic and unceasing in order to prevent its spreading and to "stamp it out;" and although their efforts were not altogether successful, yet there can be no doubt that, had it not been for them, we should have had a repetition of the disastrous cholera seasons from which we have on former occasions suffered so severely.

Where a public body has accomplished so much it may seem ungracious to complain because it has not done more, "*non omnia possumus omnes.*" Fourteen epidemics of cholera have raged at Staten Island in former years, and yet only four have reached New York. Even in the careless and inefficient manner in which it has been enforced in the past it has not been altogether a failure; it has succeeded three times out of four in guarding the portals of our city against the introduction of this foreign pestilence. And why has it failed in 1866? We answer, because it has not been sufficiently rigid. And under the circumstances it was very difficult, if not impossible, that it should be. With not a foot of land at its command on which to erect suitable buildings and accommodations, and limited to a few old hulks for the reception of the sick and well of all infected vessels, often driven to the necessity of confining both classes on board the same ship, with no conveniences for classification or disinfection, it is by no means strange that the disease should overleap such feeble barriers, and the utmost vigilance be baffled and defeated. We give a few instances in proof of our position of the undue relaxation of quarantine; others of a similar kind could easily be adduced: On the 14th of July, 1866, Mrs. McCoy, a hospital nurse from the quarantine ship *Falcon*, visited Ward's Island, and was attacked with cholera; her two children, who had spent the greater part of the previous day with her, were next attacked. On the 16th, Mrs. Burns, a very healthy woman, and companion of Mrs. McCoy, sickened, and died in twelve hours. The woman who washed the clothing of Mrs. Burns was the next victim, being attacked on the 18th, and dying after an illness of less than twenty-four hours. The outbreak then became general in the wash-house building, and spread to other wards of the Lunatic Asylum. In the course of nine days thirty-one cases and seven deaths occurred, and in two days after eleven more were reported in a dying condition.

United States recruiting officers were allowed to enlist recruits among the recently arrived passengers of cholera vessels, who carried the disease to Governor's and Hart's Islands among the United States troops collected there; and by them it was carried by the ship *San Salvador* to Tybee Island, S. C., where, in less than a month, of 490 soldiers, only 80 answered at roll-call; 95 died, over 100 deserted, 87 entered the hospital, and all the rest suffered more or less from diarrhœa.

Again, emigrants, with supposed cholera-morbus, were admitted into the Bellevue Hospital in July, 1866, which turned out to be genuine Asiatic cholera, and by the 25th of the month nineteen cases had occurred; and it has been satisfactorily ascertained that the first outbreak of the disease on Ward's Island last winter originated among passengers from the ship *Atlanta*.

Wherever the disease has prevailed in any part of the United States the present season, it may be distinctly traced to the city of New York; in the South and West, to United States soldiers, who were sent to Tybee Island, Galveston, New Orleans, etc., and who, as above stated, received the poisonous infection from the new recruits from freshly arrived emigrants in infected vessels. The whole history shows the supreme importance of an efficient quarantine at all ports where emigrant vessels are likely to arrive.

We need not speak of the quarantine arrangements during the present season, for it may almost be said that there have been none. Two or three vessels have been anchored in the lower bay, into which the cargoes of living and dead passenger-freight have been emptied as they arrived; the dead were thrown overboard at night, as there was no place provided for

burial on land; no conveniences for the comfortable treatment of the sick; no decent accommodations for the well; here, under a temperature which might rival that of the tropics, have emigrant passengers been allowed to drag out many weary days and nights, for weeks together, happy if death should come to put an end to their suffering; and this in the port of the metropolitan city of the United States!

And what are the prospects for the future? Is there any reasonable hope that the measures now contemplated, and the arrangements now being provided, for the establishment of an efficient quarantine, will suffice for the protection of our city against its invasion by foreign pestilence hereafter? We would gladly answer this question in the affirmative; but so far as we are informed in regard to the establishment now being erected in the lower bay, we cannot anticipate with any confidence that it will answer the designed purpose. It will be recollected that, under the old general quarantine law, the control and management of buildings for quarantine purposes were under the direction of the "Commissioners of Emigration;" but in 1863 a new board of "Quarantine Commissioners" was created, consisting of Messrs. Curtis, Cobb, and Anderson, who seem to have rested satisfied with doing nothing At length, in the session of 1865-6, the "Metropolitan Board of Health" was established by the Legislature, to which was intrusted full power to adopt such measures and make such expenditures as "the danger to life and public health may justify or require," within the limits of the Metropolitan District, not, however, to interfere with the prescribed duties and powers of the "Health Officer" of the port of New York, and the "Commissioners of Quarantine," who are, "so far as legal and practicable, to coöperate together to prevent the spread of disease, and for the protection of life, and for the promotion of health, *within the sphere of their respective duties*" (*Sections* 15, 16). It thus appeared that the establishment of quarantine was no concern of the Metropolitan Board, and all their efforts in this direction were altogether gratuitous and illegal. Strange that it should have taken so long to find it out, when the Board are not wanting in legal counsel and advice! The whole business, then, reverted to those who had been appointed three years ago for the very purpose of erecting suitable structures for a permanent quarantine establishment, "*but not within one and a half miles of the shore of Staten Island*," according to another act proposed on the 21st of April, 1866.

The "Commissioners" have decided that the permanent quarantine establishment will be located on West Bank, in the lower bay of New York, about two miles from Staten Island and five miles from Fort Hamilton; being midway from the city to Sandy Hook, where the water is seven feet deep at low tide. We are informed, on good authority, that the artificial island here to be created is to be of a hexagonal shape, size not mentioned. The quarantine buildings to be erected thereon are to be four in number: 1. For the resident physician. 2. An eight pavilion hospital. 3. A disinfecting-house. 4. A separate building for the dead, and the washing of disinfected clothing—the whole to be completed by June, 1867.

We know not who may have had the planning of this establishment, but we should suppose he had adopted as his model the old Lazaretto at Malta or Palermo, or some of the other Mediterranean ports. No one, certainly, at all acquainted with the laws which govern pestilential diseases, or the requirements of an efficient quarantine establishment, would think of erecting such an institution on a few isolated square feet, artificially created, with no accommodations for the different classes of persons who are to be provided for, nor even a burial-place for the dead. Dr. Copland and others have given the general features and plan of an efficient quarantine establishment as, 1, the foul lazaretto for pronounced cases; 2, the lazaretto of observation, for those cases which may or may not turn out to be infected; 3, the free or clean hospital, for accidents or non-susceptible sick; but to Dr. Wm. Marsden, of Quebec, belongs the sole and exclusive honor of conceiving and describing all the details of such an establishment for cholera. Let us see what they are, as pointed out in his remarks before the "National Medical Association," at Baltimore, in May last. In the first place, there must be ample grounds—several acres at least—called the *Cholera Quarantine Station.* 2 It should be divided into three separate and distinct *sections* or *departments.* 3. Each of these sections must be isolated and separated from one another by a portion of neutral ground, of not less than *one hundred feet wide.* 4. One of these sections shall be called the HOSPITAL DEPARTMENT, and appropriated to the use of the sick. 5. The next, or *Central Department*, shall be devoted to the use of passengers not having had cholera, but from infected vessels. 6. The third department is to be appropriated to the use of the healthy, who have been removed from the Central Department after having performed quarantine there.

The *First Section*, or Department, contains three separate and distinct hospitals, besides a convalescent hospital—the one for confirmed cases to be called the CHOLERA HOSPITAL; the *second*, for cases of choleraic diarrhœa, to be called the HOSPITAL FOR CHOLERINE; the *third*, to be called the GENERAL HOSPITAL, including all cases not of a choleraic character. The *Central Department* is to be the Primary Quarantine Department, and appropriated to all persons who are not sick, but come from vessels having had cholera on board, and wherein every case on landing shall undergo inspection, washing, cleansing, and purifying, both of persons and personal effects. There a quarantine of four days shall be performed, at the end of which time all such persons as continue in sound health shall be removed to the *Final Quarantine Department;* and any that may fall sick, or be threatened with sickness, during the four days of probation, shall, as soon as detected, be removed to the

proper hospital, in the Hospital Department. There, also, the healthy inmates shall be removed daily to a new locality, thus occupying four different habitations during their sojourn.

The *Third*, or *Healthy Department*, shall be called the Final Department, and is for all cases coming from the Primary Quarantine Department, after having been cleansed, washed, and disinfected, and after having undergone the *four days'* quarantine; and here a further quarantine of *six days* shall be performed (excepting such cases as come from the convalescent hospital), making in all *ten days* of quarantine, when all persons continuing healthy shall be discharged from quarantine and removed from the station. If any premonitory symptoms, or other cases of sickness, occur in this department during the six days of quarantine, they shall, as soon as discovered, be removed to the proper hospital, in the Hospital Department.

Such is the plan, as designed by one of the most enlightened sanitarians of our age, founded on the most ample experience and observation, and which has virtually received the endorsement of the medical profession of our country. Simple in its general features, and comprehensive in plan, it combines all necessary details, leaving nothing absolutely to be supplied. As it is founded on the known laws of the disease, there can be no doubt but that it will yet be generally adopted and carried into effect. Nothing short of this plan can fully answer the objects and ends of a Cholera Quarantine Establishment; and the sooner our Commissioners come to the same conclusion, and act upon it, the better will it be for the lives and health of our people.

The regular course of lectures at our colleges has commenced, and both teachers and pupils are making ready for work. The attendance of students is so far quite promising, notwithstanding the advance made upon the lecture fees. Whether there will be, on this account, any material falling off in the size of the classes remains to be seen. If there be any diminution in the number who attend, it will in all probability be confined to the first course students—non-residents of our large cities—who may deem it more economical to start nearer home. The increased rate of charge is so small as, under other circumstances, to be merely nominal, and will hardly prevent any student from at least finishing his course in a metropolitan school. There can be no reasonable objection raised against increasing the fees for instruction, although it certainly seems strange that our teachers, after having maintained their old prices during the war, should, at this late and perhaps inopportune time, insist upon a change. The only reasonable argument they can now offer for the taking of such a step is that they have increased their facilities for teaching, and are able to afford more advantages to the student. With some of our institutions this holds true, and we hope it may be so with all.

Reviews.

Clinical Notes on Uterine Surgery, with Special Reference to the Management of the Sterile Condition. By J. Marion Sims, A.B., M.D., late Surgeon to the Woman's Hospital, New York, Fellow of the New York Academy of Medicine, New York Pathological Society, etc., etc. New York: William Wood & Co., 61 Walker street. 8vo. pp. 401.

This work made its first appearance in London, and we now have it republished in this country. Although it has been praised by some and condemned by others, the candid reader will find it full of useful suggestions, of interesting cases, of remarkable and original operations, and cannot fail to be satisfied with the book as a reliable and practical guide for such uterine diseases as it treats of. The writer does not intend it for a systematic treatise, but as a collection of clinical notes of cases, which have come under his observation during his connexion with the Woman's Hospital of this city. The subjects are well divided, and his straightforward manner of "putting his points" makes the book very readable and intelligible. His remarks on ethereal copulation and artificial fecundation will not for obvious reasons be considered in good taste, but we must nevertheless concede to the author an honesty of purpose in investigating a subject which few, if any, can render inviting. His experiments upon the human female have certainly settled many doubted points; and if his suggestions are not followed out by his professional brethren, his conclusions will at least be of more or less value in settling many questions which are strictly medico-legal in character. The work is well printed and profusely and elegantly illustrated. Whatever may be said of the objectionable features of the book, its other qualities so far overbalance these for good that no scientific uterologist can afford to be without it.

Medical Diagnosis, with Special Reference to Practical Medicine; a Guide to the Knowledge of the Discrimination of Diseases. By J. M. Da Costa, M.D., Lecturer on Clinical Medicine, and Physician to the Pennsylvania Hospital, etc., etc. Illustrated with engravings on wood. Second edition, revised. Philadelphia: Lippincott & Co., 1866. 8vo. pp. 768.

A thoroughly reliable, concise, and yet comprehensive work on medical diagnosis has long been needed, but up to about eighteen months ago, when the first edition of this volume appeared, the profession was without one. That the medical public appreciate such a work as the one we have before us is sufficiently evident from the rapid exhaustion of a large edition. The second edition is a marked improvement upon the first, in the additional matter which it contains, which in all amounts to ninety pages or more. We have perused the work with a good deal of interest, and with immense profit, and we cannot commend it too strongly to our readers. We feel warranted in saying that its equal cannot be found in any language, and that its possession by every practitioner is an actual necessity.

Diagnosis and Prescription Record. By E. Seguin, M.D. New York: Wm. Wood & Co., 1866.

In this little book, which is intended to a certain extent to take the place of the "Visiting lists," we have quite a novel feature presented. Its objects are severally summed up as follows: "1. To give more precision and certainty to prescriptions by writing them twice—once for keeping, and once for the apothecary. 2. To substitute more and more positivism to conjecture in diagnosis and prognosis. 3. To record phenomena on the spot and keep their series in sight. 4. To treat complex or protracted cases with scientific unity of

plan." The arrangement for carrying this out is quite simple and comprehensive. Each of the first hundred pages (about seven inches by three) is divided into two halves; one of these having blanks for the date, name, age, disease, pulse, respiration, and temperature of the case, together with a space for the copy of the prescription. The other half is merely for the prescription for the apothecary, and is torn off. The back of each page is blank for memoranda. There are ten diagrams of the body, divided into its eleven regions according to Aitken, on which the results of the physical examination of each case can be noted. Seven pages are occupied by well arranged tables for recording the temperature, pulse, and respiration; and lastly, ten pages are devoted to the purposes of chemical analysis. As the title of the work indicates, it is purely a diagnosis and prescription record, and cannot be said to equal in its range of utility the "Visiting List." The principal good that it will accomplish, will be to induce exactness in diagnosis, and preserve a valuable record of every important case. Although we are afraid that the practising physician is not a sufficiently painstaking individual to preserve all his records, a good deal is done in this little book to invite him to be more industrious. The size and form of the book are convenient enough to recommend it for general use; but it is hardly durable enough to be worn out in use. We can recommend it for trial to those who have the commendable habit of making memoranda of their cases.

THE MEDICAL REGISTER OF THE CITY OF NEW YORK, FOR THE YEAR COMMENCING JUNE 1, 1866. Published under the supervision of the "New York Medico-Historical Society." GUIDO FURMAN, M.D., Editor. Edward Jenkins, 90 North William street. 1866.

THIS convenient and neatly printed manual, the publication of which has been delayed, probably in consequence of the too brief period allotted for the collection of material, can hardly be pronounced an improvement upon previous issues. Still, notwithstanding the many evidences of hasty preparation, it contains much valuable information. The omission of the chronology from the almanac is, to say the least, unwise, particularly in a publication intended for reference in matters of personal and medical history.

We notice, too, that, in the case of the larger and more general societies, the names of certain members (*e.g.* Drs. Franklin Tuthill, Ambrose L. White, Francis E. Berger, Jackson Bolton, R. D. Mussey, and perhaps others) are still borne upon the rolls without any reference to their decease. We might also state that the University of the City of New York, Medical Department, no longer holds its sessions in East Fourteenth street, but that its building was destroyed by fire, probably long before this Register was out of the printer's hands. The membership of the Bellevue Hospital Medical Union is left to inference, while from the obituaries, which, by the way, are unexceptionable in taste and spirit, the names of some four or five decedents are missing.

At the risk of being charged with hypercriticism, we claim also that the space allotted to the County Medical Societies might have been more advantageously occupied by those historical scraps which constituted so delightful a feature in the late Dr. Tucker's Manual, and to collect which is one of the professed objects of the Medico-Historical Society. The list of duly qualified practitioners, though still requiring revision, so far at least as the names of certain homœopathists are concerned, is perhaps as complete as the lack of zeal in the matter on the part of the profession itself would warrant.

The editor, evidently disheartened, announces his intention in a preface to retire from the enterprise, but we have the assurance from a quarter deemed reliable that the work itself will not be abandoned. The objects proposed to be attained by the Society itself are worthy of all praise, and the mine being worked certainly inexhaustible. Indeed, may we not say that, if there be any failure at all, it cannot be otherwise than due to a want of confidence in its own executive ability?

REFLEX PARALYSIS: its Pathological Anatomy and Relation to the Sympathetic Nervous System. By M. GONZALEZ ECHEVERRIA, M.D. (Univ. of Paris), Physician to the Charity Hospital, N. Y.; formerly Assistant Physician to the National Hospital for the Paralysed and Epileptic of London, etc., etc. New York: Baillière Bros., 1866. 8vo. pp. 90.

THIS monograph is made up of two chapters, in the first of which we have the definition, ætiology, and pathological anatomy of reflex paralysis; while in the second we have the influence of the sympathetic system on the production of this class of affections considered. The author has given us, in this highly interesting, concise, and instructive book, an insight into that class of nervous affections to which, we regret to say, too little attention has been paid by practical physicians. Besides presenting to his readers a history of the affections in a manner that is not only clear but truthful, he brings to the aid of his investigations into the pathology of the affection, the microscope. Numerous cases are cited and analysed, and the points which they illustrate are set forth with the skill of one who well understands his subject. We would gladly present our author's views, some of which are original, were we confident that we could do them justice in the small space allotted to us. Suffice it to say, however, that they seem tenable as far as they go, and deserve the careful study of every one who desires to become practically acquainted with the interesting class of cases treated of. His microscopical examinations have been made with a great deal of care and fidelity, and their importance will not be underrated by any who have given attention to microscopical studies. Besides describing the histological changes with all the detail that their significance demands, we have them illustrated in four beautiful and truthful photographs, on steel, by the admirable process of Baron Egloffstein. These plates, with the style of type, the excellent quality of paper, and the superior binding, make the work a very handsome one.

GEUM VIRGINIANUM IN DYSENTERY.—Dr. W. A. Gibson, of St. Louis, in a communication to the St. Louis *Medical Reporter*, thus speaks of the virtues of this plant: "The root is astringent and slightly bitter, very much resembling in taste the blackberry root. I have been using a decoction of the root and plant in dysentery for more than ten years, and I think it worthy of a place in our dispensatory. I require my patients to drink freely of the tea thus made, using it in lieu of water, which I always forbid if cold. I never, in my experience (which has been large in this disease), knew a patient with dysentery to take a large draught of cold water who did not desire to go to stool immediately. While practising in the country, my attention was first called to the virtues of this plant by the farmers. Many of the country people, appreciating its value, entirely ignore the idea of calling in a physician in a case of dysentery, but rely entirely on this remedy, and candor compels me to say that I believe they have oftener gained than lost by this course. I have seen many bad cases of dysentery successfully treated with this remedy alone."

New Instruments.

THE CLAMP SHIELD

AN INSTRUMENT DESIGNED TO LESSEN CERTAIN SURGICAL DANGERS, MORE PARTICULARLY THOSE OF EXCISION OF THE UTERUS BY ABDOMINAL SECTION.

By PROF. HORATIO R. STORER,

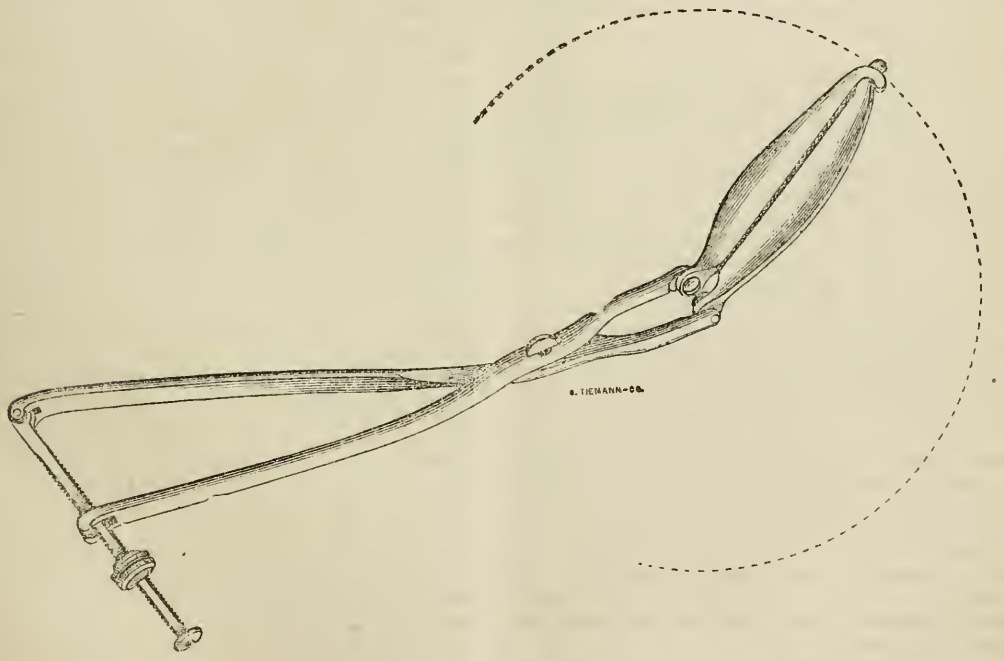
OF BOSTON.

[Read, by invitation, before the Berkshire District Medical Society of Massachusetts, July 25, 1866.]

In a paper upon abdominal ablation of the uterus unaffected by malignant disease, published in the *American Journal of the Medical Sciences* for January last, I took occasion to carefully and differentially examine into all the circumstances having any apparent bearing upon the successful or disastrous result of the several instances of this grave operation hitherto put upon record. In the course of that investigation I was able, I am told, while suggesting new sources of danger, to clear up some doubtful features of others whose existence had been previously demonstrated. The fact that I had removed, with complete recovery of my patient, a much larger diseased uterus, with its entire appendages, than not merely had ever before been operated upon with success, but had ever been attempted in the whole past records of surgery, had given me, after careful analysis of the case, the assurance that pelvic sections, even of so heroic a character as this, are not wholly governed in their results by chance, and I was anxious to put in the hands of the profession at large the means of insuring an equal success.

In a subsequent paper, read before the American Medical Association, at Baltimore, in May last, and to appear in the forthcoming volume of its Transactions, I have pursued these researches to a greater length, basing my observations upon five additional cases, both from home and abroad, that I had been able to collect, of which a second was from my own personal experience. At the present moment I am able to report a third case, from my private practice.

The chief dangers, of course, in the operation under question, arise from nervous shock, from hæmorrhage, and from excessive subsequent reaction, general or local; these dangers being greatly enhanced, in the case of uterine ablation as compared with that of one or both ovaries alone, by the frequent existence of extreme pelvic adhesions, much more difficult of separation, and more liable to profuse hæmorrhage than any attachments to the abdominal walls, and by the normal anatomical relations of the organ to be removed. Putting aside the two fatal cases of uterine ablation where accident fairly occasioned the result, as in one of Clay's, where the woman, convalescent, was dropped upon the floor by a careless nurse, and that of Peaslee, where a loop of intestine escaped between the abdominal sutures and became strangulated, we find that in a larger proportion of fatal uterine than ovarian cases, the death has been from nervous shock or from primary hæmorrhage; several of the patients, indeed, having died under the knife or without rallying. Now, if it can be shown that there have existed in all these instances certain special reasons why death ought *à priori* to have followed the individual operation, or certain special risks that were not recognised and avoided, these reasons and these risks being simple, and now within our control, I think it will be granted that the attempting this operation, in the light of our present advance, need not, as was supposed necessary by Mr. Hutchinson, of London,* imply madness on the part of the operator.



In investigating the cases that had been put upon record, a very large proportion of which had been fatal, I ascertained that in most of them ablation had been performed by the knife; and that in several one of the neighboring cavities, either the rectum, vagina, or bladder, had been opened, an accident very materially increasing the shock and lessening the patient's chance of recovery. As to the knife, no one denies that far less

* *Medical Times and Gazette*, 1857, p. 170.

hæmorrhage is liable to follow the use of the écraseur. On the other hand, I have long been aware that, attending the employment of this latter instrument, there exists a special risk that has hardly been adverted to by writers upon the subject, though it must have been observed by every one practically familiar with the use of the écraseur. I refer to the drawing into the grasp of the chain, by its progressive action, of outlying tissues; so that the wound resulting from the operation, allowing for compression, etc., is often found larger than would have been anticipated. To use the écraseur, therefore, under the circumstances that attend a greatly hypertrophied or distorted uterus, especially if accompanied by adhesions of such thickness and extent as utterly to destroy all apparent normal relations, was a problem that seems to have been hitherto unsolved.

In the first of my own cases I endeavored to gain a greater control of the mass to be removed, by the use of the ordinary metallic ovarian clamp, this having been the first instance, so far as I am aware, of the employment of such an instrument at the bottom of the pelvis. The indications I had in view were partially met; excessive hæmorrhage was prevented, and the neighboring cavities were preserved intact. So great, however, was the wedge-like action of the écraseur, and so little the spare room, that the jaws of the clamp were forced apart by the contracting chain, and the clamp itself fell from the stump of the cervix as soon as division had been effected. From this moment I perceived the necessity of the instrument now described, to which I have given the name of the Clamp Shield.

In my second operation, also, I was compelled to employ an ovarian clamp. I had sent my drawings for the new instrument to the maker, in New York, but the clamp shield had not been completed, and in default of it, selecting from Mr. Tiemann's whole variety of clamps, I had chosen one of the same pattern as that used before, only much stronger. In the present instance, not only were the jaws forced apart, but the clamp itself so bent in the direction of its longitudinal axis, that it had to be returned to New York to be straightened. This mechanical accident, however, was but a trifle to the injury consequent upon the peculiar action of the écraseur I have above alluded to, which the ovarian clamp was wholly powerless to prevent. Use all the care that I could, the right internal iliac artery and vein were dragged up and opened, involved as they were in a mass of morbid adhesions, and it was with extreme difficulty that the hæmorrhage was checked. This, however, was ultimately accomplished, and the patient rallied from the shock, dying on the third day from peritonitis, a condition, I may remark in passing, that proved to exist at the time of the operation; masses of flocculent lymph, unattached save at a single extremity, being then found present in large quantity, dependent apparently upon a fall that the patient had recently experienced.

In my third case of removal of the uterus and both ovaries, I used the perfected instrument, and it answered completely every indication. In this instance the difficulties of the operation were greater even than in the others, although the morbid mass was much smaller, and weighed but a couple of pounds. The tumor was very vascular, and without the clamp shield, so large and so numerous were the vessels it was necessary to divide, I should undoubtedly have lost my patient from primary shock. As it was, she rallied, and would probably have recovered had she had a more reliable and competent nurse. And here let me say that no attendant, whatever her recommendations or endowments, should be intrusted with the after-treatment of such cases, unless we have previously had personal experience of her zeal and good judgment. So far as the clamp shield was concerned, the operation was a perfect success.*

The instrument is a simple one. It is necessary to exert powerful transverse pressure, at times very low in the pelvis, and not unfrequently to be able to vary the angle at which this pressure is employed. The clamp shield consists, therefore, of a powerful pair of jaws, separable, but capable of being conjoined by a ginglymus at their outer extremity. To these jaws are affixed, by ball-and-socket joint, the blades of an upright forceps, fitting together by a movable pivot, and with a binding-rod with ratchet and screw to clasp their upper extremities. The force thus available for compression is very great, while the ease of their application, even in inexperienced hands, is all that could be desired.

It will be evident that the new instrument is available for many important operations and purposes in surgery over and above that for which it was especially designed. Wherever it is necessary to take every possible precaution against hæmorrhage, and to prevent the undue and dangerous action of the écraseur, to which I have adverted, the measure now proposed will be found applicable. It has already received a favorable expression of opinion from many surgeons who have perceived its advantages in lessening risks otherwise obtaining. In the paper read to the American Association, I referred to a case communicated to me from New York, where an operator, essaying to remove the head of the penis by the écraseur, found to his chagrin that he had amputated the entire organ. With the assistance now made available, such an accident could not have occurred.

The number of cases of the operation for ablation of the uterus by abdominal section that I had been able to collect at the time of publishing my first paper upon the subject† was twenty-four, and of these, six, or twenty-five per cent., had been successful. To the number then reported, I am now able to add seven more; to wit, one by Dr. Boyd, an American case that had escaped my notice;‡ one by Dr. Sawyer, of San Francisco,§ which was published as a case of carcinoma, though upon carefully examining the report I am satisfied that the tumor was a fibroid undergoing degeneration; one by Mr. Cadge, of Norwich, England, reported by Dr. Routh;‖ one by Prof. Pope, of St. Louis,¶ the operation having been performed since my paper was published; one by Prof. Weber, of Cleveland, communicated to me by that gentleman, though yet, I believe, unpublished; and the two new cases from my own practice, to which I have alluded. Of these additional cases, but one, that of Dr. Boyd, was successful. The statistics of the operation, with these new cases, now stand as follows: Thirty-one cases and seven recoveries, or twenty-two per cent. of the whole; a mortality not exceeding that of several of the major operations that are acknowledged by surgeons to be legitimate.

I do not hesitate to publish these additional statistics, for I wish the matter carefully examined into by the profession, confident as I am that the dangers of the

* I have also tested the instrument, since the above paper was read, in four cases of ovariotomy, three of them in my own practice, and the other performed by my colleague, Prof. Greene, of Pittsfield, which he will doubtless report in this Journal. In each of these cases, the clamp shield was found to be just what was required; in two of them, indeed, the operation could hardly have been completed without it, on account of the shortness of the pedicle and the risk of excessive hæmorrhage.

† *Am. Journ. of the Med. Scien.*, Jan., 1866.

‡ *Ibid.*, 1856, p. 572.

§ *Ibid.*, 1860, p. 46.

‖ On Fibrous Tumors of the Womb, etc., London, 1864., Table III.

¶ *St. Louis Med. and Surg. Journal*, July, 1866, p. 293.

operation, upon scientific study of its several relations, may be very materially lessened. I think it will be found that the instrument now proposed will go far towards this end; and I have no doubt that in many of the fatal cases now on record, as in that so well described by my friend, Prof. Pope, its employment, had it then been invented, would have very materially lessened the amount of shock, to which so many of these patients have succumbed.

To sum up then, as I have done in my paper read before the American Medical Association, the grounds upon which the clamp shield is to facilitate the operation for the removal of the uterus, and to lessen its mortality:

I. AS A CLAMP.

1. It lifts the uterus, so as to bring as much as possible of the cervix within its grasp.

2. It enucleates the portion to be divided from the surrounding tissues.

3. It aids and increases the action of the écraseur in directly controlling or preventing hæmorrhage; and thereby, also,

4. It lessens the number of ligatures necessary to be subsequently applied.

II. AS A SHIELD.

5. It protects the tissues beneath and around it from becoming lacerated.

6. It prevents outlying vessels from being unnecessarily divided.

7. It covers the bladder, the vagina, and rectum, and so avoids the causation of increased shock, and in case this is recovered from, of increased subsequent danger.

III. IN ITS TWOFOLD CAPACITY.

8. It relieves the surgeon's mind during the operation from all fear of the dangers above indicated.

9. It enables him cheerfully and hopefully to undertake many doubtful and desperate cases from which he would otherwise shrink in dismay, or which he could not, in conscience, undertake; and best of all,

10. It, for all these reasons, tends to increase the number of cases attempted to be cured, and by lessening the mortality, of those in whom the cure may become realized.

In conclusion: I closed my first paper with the following quotation from West:—"Your duty and mine is not to sit down in apathetic indifference, doing nothing, trying nothing for a patient's cure, because her disease is one which hitherto has proved almost invariably mortal; but rather, patiently, carefully, with much distrust of our own powers, much watchful scrutiny of our own motives, to apply ourselves to the trial of every means by which suffering may be mitigated or life prolonged."*

I could not better take leave of the readers of my second paper than with an apt sentence from Spencer Wells, addressed to the two great branches of the profession: "In this question, as in every other where we have to decide upon matters of life and death, medicine and surgery, in their widest sense, must cordially coöperate in the service of humanity."†

And in presenting this third communication upon the subject of ablation of the uterus by abdominal section, a single line will be found to sum up the whole matter. If faint heart never wins fair lady's hand, it most assuredly will not save a fair lady's life when this is threatened by a disease hitherto thought to be necessarily mortal, but which is now proved to be curable in a fair percentage of cases, by an operation perfectly legitimate in itself, and whose danger, like that of ovariotomy, will eventually be still further lessened.

* Diseases of Women, p. 419.
† Medico-Chirurgical Transactions, London, vol. xlviii.

Correspondence.

MEDICAL EDUCATION.

PHILADELPHIA, Oct. 1, 1866.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—The action of the American Medical Association at its recent session with regard to the subject of Medical Education, and the discussion that preceded it, as well as the ineffectual efforts during previous years to induce the suggestion to colleges, to use the least objectionable term, that a more efficient and practical method of instruction should be adopted than that at present employed, sufficiently show the necessity of reform in this particular to those to whom it may not have been patent before. It is to be hoped that some definite and general action be taken which shall be pursued more or less uniformly in every school of medicine, and which shall at the same time be acceptable to the American Medical Association, and receive its merited recommendation. It is not perhaps advisable that an Association representing the various medical institutions of all kinds should maintain an actual surveillance over the actions of medical schools, as this would induce a centralization of power repugnant to the broad liberalism of our profession; but it is advisable that the grand representative body of the profession should establish a certain moral influence over its teachers, and make itself felt within their collegiate walls; and it is certainly desirable that they should be allowed to designate at least some of the prerequisites to prepare properly those who are subsequently to become their associates. Therefore, though an absolute authority in these matters is perhaps out of the question, the American Medical Association should be so sustained as to wield considerable influence over medical organizations, and be raised to such a standard as to be a sort of tribunal to be consulted in all matters pertaining to the general welfare of the interests it is supposed to represent.

There is hardly a medical man in practice who does not regret that his method of instruction had not been more rigid, systematic, or exacting; and who does not feel that had it been so, he would have been a more competent practitioner. The duty that lies before us is to secure to others the method that would have been beneficial to ourselves.

There are several points in which our system of medical instruction can be improved. In the first and most prominent place, there is the subject of preliminary education; then we have the also important points of term of study, regulation of study, length of lecture term, clinical instruction, requirements for graduation, and examination and license. It is proposed to speak of these subjects a little in detail.

First, as to the matter of preliminary education. Every aspirant for medical honors should be compelled to furnish evidence that he has become fitted by previous associations to demand admittance into the ranks of the profession. As to the precise requisites of fitness, or the actual amount of preliminary education, that, of course, will require a good deal of judgment to determine. Each school or society could assign the limits requisite for admission to its own circle. The general profession would then at once have a guide as to the general calibre of that local institution, and would know its minimum of ability. That would be a good deal gained. The result would be, that eventually the same standard would be required everywhere, and each would aim to stand as well with the general community as the highest. Then everything would be gained.

These requisites should be, a good moral character in the locality of residence, as certified by one or more respectable physicians of that locality, who might testify that So-and-so would be a desirable member of the profession when found professionally competent. Then he should be possessed of a tolerably good English education, such as knowing how to spell correctly, and having a certain proficiency in grammar, arithmetic, and some of the more ornamental branches, as geography, history, and so on. In short, he should give certain unmistakable evidence of general intelligence. This could be determined by actual examination before matriculation. And it would also be desirable that he be so far classically prepared as to comprehend the idioms of Latin composition and the rudiments of the Latin grammar. As long as Latin terms are constantly issuing from the mouths and pens of practitioners, it is at least necessary that the speaker and writer should use them correctly; an improper term or an ungrammatical prescription only displays one's ignorance. If it could be done, it would perhaps be well to abolish classical terms and employ the vernacular constantly; but as long as we continue old Latin terms and coin new ones, a certain proficiency should be demanded.

It is not thought requisite to insist upon the necessity for a preliminary English school or self-education, or for the possession of a moral character; for those who will not concede this much can hardly expect one to attempt to convince them of other proprieties demanding greater comprehension. But as to Latin, why should the prerequisite of some acquaintance with Latin be demanded? Many of us know nothing of Latin, and are considered competent and reliable physicians; and many of us have had fathers and preceptors who never knew Latin either, and they were brilliant practitioners. *Latin* won't make a *doctor*. And the time occupied in studying Latin might be devoted to professional studies more immediately serviceable. And then if you insist on this demand, the colleges will lose a great many students; and men of intellect, who might have ornamented the medical profession, will be attracted to other employments, to our general loss.

Well, then, a doctor should be a tolerably well educated man; his mind should be trained by previous study to habits of investigation; and for this purpose alone, the study of Latin would be a good preliminary discipline. Besides, if he is an intelligent man, he will not consider it a hardship to make himself sufficiently familiar with the terms in constant professional usage, so as to be spared the humiliation of making mistakes in uttering or writing them; and to be satisfied to acquire this proficiency parrot-like, by mere force of memory of sounds alone, is not to exhibit a very high standard of intelligence.

The man who wishes to become a physician, who has been debarred by position, locality, or want of means from obtaining this preliminary requisite, will, if sincere in his desire, be sufficiently willing to endure further sacrifice of time or labor in order to prepare himself properly for his initiatory or collegiate studies; and if he has not enough energy to do this, he does not deserve the privileges it would confer on him, that's all. Besides, the familiarity with Latin sounds will assist him materially in his studies, and save him many hours of effort to memorize terms, whether for use or purposes of final examination. The name merely of many a portion of the body will continually carry with it to his intelligent mind its anatomical, or physiological, or pathological relations; and he will therefore save over and over again, for the study of professional matters more immediately serviceable, the hours devoted before to the study of Latin. A man of ordinary mental capacity can, by devoting but an hour a day to this study, learn more in six months than would be necessary for the most exacting college in this country to demand as a preliminary prerequisite. And suppose a knowledge of Latin will not make a man a *doctor*, it will make him a better and more intelligent doctor than without it; as, in fact, will the acquirement of any knowledge that will increase his powers of comprehension and extend the limits of his professional inquiries. And suppose a smaller number of students should present themselves; that would not prove a very great misfortune to the profession. We should then have a much greater proportion of competent men; and it would keep out of the ranks many an ignorant fellow, who manages by some hook or crook to secure a diploma, as much to his own astonishment and that of his family and friends, as to the surprise of the professional brethren with whom he subsequently comes in contact. It is this very looseness of not demanding a preliminary preparation that creates so many inefficient practitioners, and, in consequence, lowers the standard of general professional excellence. What can an intelligent merchant think of the professional acquirements of one who was always an ignoramus? Is he to think that there must be some gift in doctoring, that a man can become intelligent on this subject, and remain ignorant on all matters of general interest? If the subject were closely inquired into, we should find that reasoning of this kind will account for many of the cases known to every member of the profession, where intelligent men seek the counsel of notorious charlatans, in spite of the *moral influence* of the regular profession. Raise the standard of medical excellence, and you raise the standard of those who profess medical excellence and possess it; and if the numbers are decreased, those who properly belong to us will be better able to support themselves and their families. It will be beneficial to get rid of the many doctors who would prove incompetent; then many a competent man, who is forced, after years of unsuccessful waiting, to abandon the practice of medicine for a more remunerative employment, would be able to support himself, and do honor to the profession. Let us, then, adopt a standard of preliminary preparation, and the men who come up to it will all graduate at the end of their studies, and our colleges will be spared the humiliation of receiving under tuition men whom they are compelled to reject at these examinations. And this feeling of shame must exist to some extent, and no doubt has some influence in graduating "by the skin of their teeth" men who ought never to be given the diploma which they have not honestly earned. Men, too, who get off so easily, run down the profession. If they get through with such little effort and study, it is impossible that they should retain a high opinion of their college or their teachers; and their individual influence is felt among the community. Receive none but good men, and you will graduate none but good men, and the profession will become raised in the estimation of the community, and of its own members likewise; and colleges will be something more than places to visit, sit occasionally during lectures, and pay for tickets and diplomas.

The term of study is a subject that demands considerable attention. The question whether three years is long enough or not is being agitated. Some limit should, of course, be placed as to the shortest term of study which shall be received as sufficient. We all know some men will learn more in six months than others will in two years; and it is not fair to keep the bright student back until the dull one can catch up to him. Our profession is a liberal one; and if an applicant has arrived at the years of discretion, he should be given his diploma as soon as he has earned it. If we have a

certain preliminary standard, and then a certain curriculum of study, be it one, two, three, or four years, as soon as a man has complied with the requisitions, he should have a right to his diploma, if competent.

In the regulation of study a great reform is demanded. It seems perfectly ridiculous to teach exactly the same thing to the raw student just from school or the plough, and to the man who has been studying his profession a greater or smaller length of time, and who, in addition, has *already heard the same lectures once or twice.* It is paying a poor compliment to the advanced student, and seems like saying to students of medicine, "Here, listen to this lecture, or set of lectures, or a set like it, at least twice, and then as often again as you please; and when you think you know it by heart come and we'll examine you, and see what you remember." Is, then, the science of medicine so limited that the most a man has to do is to listen to the same lectures over two or three times, and then be recommended to the public as a practitioner of medicine! Shade of Hippocrates!

The proper method will be to establish gradation in study, and lead the advanced student somewhat further on the path of knowledge than the mere tiro who does not know a fracture from a rupture. How the poor unprepared students are mystified during their first course of lectures, which they are only prepared to understand when they begin their second course, and to explain which, and arrange for their mental digestion, even then they have recourse to the private tutors who attend these same lectures too, to know what requires further explanation! The idea, in this century, of teaching intelligently a man who probably knows nothing of chemistry, of the action and reaction of chemical remedies; or who is unacquainted with anatomy, the brilliant operations of mechanical surgery, or instrumental obstetrics; or who is unacquainted with physiology, the diagnosis and treatment of organic disease, is, in plain English, absurd. It is true that a great many good doctors are turned out in spite of it; but the inefficient ones outnumber them. And how many good doctors would be turned out with no other instruction than *one* of these courses of lectures? As to the length of the lecture term, it may or may not be prolonged. To the studious man it is long enough, and to the lazy man it is too long as it is. But what should be done is, to so regulate the studies as not to strain the mind of teacher or student. If a certain course is too extensive to be got over thoroughly by one man in the time allotted, let him divide his course, and let the primary portions be taught by another. We used to have fewer chairs than we have; and if those we have are not enough to teach the subject thoroughly, we should have more. Then, certain branches being taught during different years, lectures to first, second, and third course students could be delivered during the same hours, but of course by different teachers and in different rooms; and the labor divided in this way, though perhaps individually less remunerative pecuniarily, would effect greater results, and without extending the lecture term.

Clinical instruction, demonstrative and appealing to the senses, supported by the intellect, will fix in the mind the abstract didactic instruction of the lecture-room. This is becoming more and more evident every year; and some schools are making it a prominent part of their system, and they are on the shortest and safest road to success. Roundabout paths, it is true, lead to the same goal; but they are longer and more tiresome, and when he gets there too, the traveller is much fatigued and has to rest; and sometimes he rests too long, and his comrade who took the shorter path gets well up the ladder of fame, while he is creeping up the lower rounds, and sometimes has to go back again for something he dropped in his tortuous path to the ladder.

The requirements for graduation should be a good character, and evidence on examination of a certain proficiency in study. And it would be well if the student, after attending one course, should be examined and found competent before being permitted to attend the higher course, and so on to the end, when a successful examination should entitle him to the privileges of graduation; and the diploma should be only evidence that a student had accomplished a certain course of study to the satisfaction of his tutors. *The licensing as a practitioner* should be invested in some examining board entirely disconnected with the direct college interests. This would relieve professors from the onus of being charged with partiality, and would enable the profession generally to have some knowledge of the capabilities of candidates for professional honors.

Yours truly, C. J.

QUININE AS A PROPHYLACTIC.

THE EXPERIMENTS OF DR. BENCE JONES.

To the Editor of the Medical Record.

Dear Sir—I desire to call the attention of the profession to the interesting and novel investigations of Dr. Bence Jones, respecting a quinine-like substance found by him in the animal body, with the object of noticing the remarkable correspondence between his demonstrations and conclusions drawn from observations made upon the human subject by myself. I see that according to the summary of his experiments, which you published in the Record of September 15, he found that all the tissues of the bodies of the animals which he submitted to examination contained this quinine-like substance, and that its quantity was temporarily increased by administering this alkaloid. This fact is a starting-point, in my estimation, of inestimable chemical physiological investigation and discovery. But the more immediate practical results of his investigation thus far are the showing, by the means employed, that "quinine," in a few minutes after its administration, passes into every tissue of the body; that its maximum effect is produced in *two* or *three* hours, and then decreases till it disappears in about seventy-two hours.

In a paper which I contributed to the State Society in 1862 will be found the following instructions for the administration of quinine, to prevent the paroxyms of miasmatic intermittents. The rule, then, is, after the subject becomes infected, never give him quinine without he has premonitions of an approaching paroxysm. Arrest them promptly by full doses—not generally less than five grains—repeated *once* in *two hours*, so long as indicated, taking care to make them large enough to accomplish the object. It is a most gratifying circumstance, as well as an interesting fact, that those results of observations upon the human subject have been so strikingly corroborated by Dr. Jones's experiments on the lower animals. This author, as we see, estimates the maximum effect of quinine as occurring at a period of two to three hours after taking the drug. In the paper above quoted, I advise no one to wait for effects from quinine taken longer than two hours, because, according to my observations, its maximum effects are felt in most persons in about that time.

Those observations were made with the drug in solution, the most prompt and active form. The summary you publish of Dr. Jones's experiments does not mention the form in which he employed the quinine, but it is presumed that it was in solution. If Dr. Jones had taken notes of the degree of effects of the drug mani-

fest at intervals of one or more hours, it would have been useful in estimating the reason and the value of the following directions for the use of quinine in the protection from miasmatic poison, given in my paper already quoted: "When men are to be sent into miasmatic localities, either from ships or from land forces, a dose of quinine sufficiently large to produce some appreciable evidence of its action should be taken by every one before entering such locality, and should be repeated once in twelve, and in some cases once in eight, hours, which the physician must ascertain and prepare for during the time spent there." He states, it will be observed, that all effects did not disappear till about seventy-two hours. How much less than the maximum existed at the end of eight or twelve hours, and hence how much less than maximum will protect from miasmatic infection?

My observations satisfied me that no efficient effect of quinine as a protective need be looked for after the expiration of eight to twelve hours from the time of administering it, which is considerably past the maximum stage, as demonstrated by Dr. Jones. With the confident hope of seeing discoveries in this branch of medicine, which will answer these queries, and place our knowledge of it far in advance of the position Dr. Jones has placed it, I am,

Yours truly,

STEPHEN ROGERS, M.D.

232 WEST THIRTY-NINTH STREET, N. Y.,
September 30, 1866.

Obituary.

DR. AUGUSTUS A. GOULD.

We have to announce the sudden death of a citizen equally estimable and eminent, Dr. Augustus A. Gould, who expired this morning (Sep. 15) at 5.30 o'clock. He was slightly indisposed yesterday, and called medical attendance in the evening, but continued to grow worse, and gradually became feebler until he died. Dr. Gould was the son of Deacon N. D. Gould, late of Boston. He was born in New Ipswich, N. H., April 23, 1805, and graduated at Harvard College in 1825. He pursued the study of medicine with Drs. James Jackson and Walter Channing, and immediately thereafter commenced practice in Boston. Dr. Gould is widely known as a scientific student and writer. Science was the leading passion of his life. He was appointed by Congress in 1846 to classify the shells collected by the Wilkes Exploring Expedition, and contributed a quarto volume to the history of that national enterprise. He was associated with Prof. Agassiz in the preparation and publication of his earlier works, and was largely instrumental in inducing that distinguished Professor to make his home in the United States. He was one of the leading members of the Boston Society of Natural History; was a Fellow of the American Academy of Arts and Sciences; of the American Philosophical Society; of the American National Society of Science; and, two years ago, was unanimously elected President of the Massachusetts Medical Society. He contributed voluminously to the published transactions of these distinguished bodies. In 1862 he published his *Otia Conchologica—Descriptions of Shells and Mollusks, from* 1839 *to* 1862. In the department of Vital Statistics he stood eminent among American students of that neglected science. He contributed, with a few exceptions, to every volume of the annual reports of the Registrar-General of Massachusetts, and these articles have a value only fully recognised by the laborious workers in the same field. In addition to these writings, Dr. Gould furnished important papers to various European and American scientific societies of which he was an honorary member, and to different home and foreign publications. He was engaged for several months before his death on a report of the Invertebrata of Massachusetts, a work first published in 1841, and for a new issue of which the Legislature of 1865 made an appropriation of $4,000. This work was nearly completed. He was engaged on it yesterday. The unfinished manuscript lies on his table. Among the minor but most useful acts of Dr. Gould was the labelling of all the trees on the Common, for which he procured a small appropriation from the City Council a year or two ago. His remains were interred on Tuesday, Sept. 18. —*Boston Traveller.*

JAMES H. ANDERSON, M.D.

At a stated meeting of the East River Medical Association, October 2, 1866, the following preamble and resolutions were unanimously adopted:

Whereas, God in his providence has removed from his family and friends our late and much beloved associate James H. Anderson, M.D., a man honest and upright in all his ways, and honorable in all his dealings. Therefore,

Resolved, That while we feel deeply our own loss, we offer our heartfelt sympathies to his bereaved and afflicted family.

Resolved, That a copy of these resolutions be presented to his family, and that they be published in the MEDICAL RECORD.

VERRANUS MORSE, M.D.,
W. F. THOMS, M.D.,
ALEXANDER STERL, M.D.,
} *Committee.*

New Publications.

BOOKS AND PAMPHLETS RECEIVED.

A PRACTICAL TREATISE ON THE PHYSICAL EXPLORATION OF THE CHEST, AND THE DIAGNOSIS OF DISEASES AFFECTING THE RESPIRATORY ORGANS. By AUSTIN FLINT, M.D., Prof. of the Principles and Practice of Medicine in the Bellevue Hospital College, etc., etc. Second edition, revised. Philadelphia: H. C. Lea, 1866.

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS. By FRANK HASTINGS HAMILTON, A.B., A.M., M.D., Professor of the Principles of Surgery, Military Surgery and Hygiene, and of Fractures and Dislocations, in Bellevue Hospital Medical College, etc., etc. Third edition, revised and improved. Philadelphia: Henry C. Lea, 1866.

ORTHOPEDICS: A Systematic Treatise upon the Prevention and Correction of Deformities. By DAVID PRINCE, M.D. Philadelphia: Lindsay & Blakiston, 1866.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK—ELECTION OF OFFICERS AND DELEGATES.—At the sixty-first anniversary meeting of the Medical Society of the County of New York, the following were elected: President, Dr. Samuel T. Hubbard; Vice-President, Dr. James Kennedy; Treasurer, Dr. W. B. Bibbins; Recording Secretary, Dr. Ellsworth Eliot; Corresponding Secretary, Dr. H. M. Brush; Censors, Drs. Thomas C. Finnell, Wm. M. Chamberlain, Alfred Underhill, W. N. Blakeman, and W. H. Thomson. Delegates to the Medical Society of the State of New York, Drs. C. A. Budd, Stephen Smith, J. Kennedy, S. T. Hubbard, W M. Chamberlain, E. Eliot, E. R. Peaslee, W. B. Bibbins, W. H. Thomson, J. P. Garrish, A. Underhill, C. Prince, T. S. Bahan, J. J. Conolly, H. M. Field, J. O. Pond, R. A. Barry, Jerome C. Smith, J. R. Van Kleeck, R. Newman, and W. F. Thoms.

Medical News and Items.

PERSONAL.

Drs. John H. Johnson, of Evansville, Ind.; H. E. Bowles, of Hammonton, N. J.; J. T. Grant, of Pulaski, Tenn.; Eben J. Russ, of Benzinger, Pa.; Earnest Kramer, Milwaukee, Wis., and Dr. Wm. Lewitt, Ann Arbor, Mich., have been appointed Pension Examining Surgeons.

Assistant-Surgeon C. C. Byrne, having been promoted Surgeon U.S.A., vice Brevet Col. Chas. K. Sutherland, appointed Purveyor to date July 28, has been relieved from duty in the Department of the Gulf, and ordered to report in person without delay to the Commanding General and the Medical Director of the Department of Arkansas for assignment of duty.

Assistant-Surgeons Clinton Wagner, Joseph P. Wright, C. C. Grey, and W. C. Spencer, have also been promoted Surgeons U.S.A., to date July 28, to fill original vacancies created by act of Congress, approved July 28.

Assistant-Surgeons J. H. Bill, DeWitt C. Peters, Chas. Alder, Warren Webster, and John Vansandt, have been appointed Surgeons to the United States Army.

Brevet Lieut.-Col. J. F. Randolph, Surgeon U.S.A., has been ordered to duty at Fort Wood, New York Harbor.

Surgeon B. Gesner, now practising his profession in Washington, D. C., has been nominated by the President to the rank of Lieut.-Col. Volunteers, to date from March 13, 1865, for gallant and meritorious service rendered during the war.

Brevet Brigadier-General R. S. Satterlee, Surgeon United States Army, has been appointed Chief Medical Purveyor of the United States Army, and stationed at New York city; Brevet Colonels C. McDougal, Francis K. Abadie, Robert Murry, and Charles K. Sutherland have been appointed Medical Purveyors United States Army.

Brevet Lieutenant-Colonel Lewis Taylor, Surgeon United States Army, is ordered to proceed to Chicago, Ill., and report in person on the 1st of October to Brevet Brigadier-General Burbank, Colonel Second United States Infantry, President of the Board of Officers convened at that place by Special Orders No. 404, August 16, 1866, from the War Department, to examine officers to be appointed in the regular army.

Passed Assistant-Surgeon George H. Cooke, United States Navy, has been detached from duty at Naval Academy, and ordered to steamer Resaca; Surgeon John S. Mercer Smith, from the Norfolk Navy Yard, and ordered to the Philadelphia Navy Yard; Surgeon Lewis J. Williams, from the Navy Yard at Philadelphia, and ordered to the Navy Yard at Washington, D. C.; Passed Assistant-Surgeon Edward R. Dodge, from the Mackinaw, and granted sick-leave of absence; Surgeon Samuel J. Jones, from duty at the Marine Rendezvous at Chicago, Ill., and placed on waiting orders; Surgeon Jacob S. Dungan has been ordered to the Norfolk Navy Yard; Acting Assistant Surgeon C. W. Knight to the Tahoma.

Dr. Joseph C. Tucker, a brother of Surrogate Tucker, of this city, has been appointed by the Secretary of the Treasury to the lucrative position of Physician and Surgeon to the United States Marine Hospital at San Francisco, Cal., vice Dr. Hastings, removed.

Prof. L. A. Sayre left the city for the Pacific coast on the 30th ult., accompanied by Ben. Holladay, the President of the Great Overland Company.

Dr. J. P. Garrish has resigned as one of the Attending Surgeons of the New York Ophthalmic Hospital.

The Bureau of Medical and Surgical Relief for Outdoor Patients at Bellevue Hospital was opened on the 1st inst.

American Medical Association.—The Prize Essay Committee of the American Medical Association request that all communications to be sent to them be sent to their Chairman before the 15th day of March next, accompanied by a sealed envelope containing the name and address of the authors. The Association offers two prizes, of one hundred dollars each, for the two best essays on any subject connected with the medical sciences. F. Donaldson, *Chairman;* W. Chew Van Bibber, Josiah Simpson, Edward Warren, C. C. Cox, *Committee,* Baltimore, Md.

Medical Attainments *versus* Social Talent.—Young physicians often dream that by extending the circle of their private acquaintances they thus afford themselves the best chance of extending the circle of their private patients. No view could be more chimerical, no error more fatal. No man will in any case of doubt or danger intrust to your professional care the guardianship of his own life, or the lives of those dear to him, merely because he is on terms of intimacy with you. Make yourselves known, but let it be for your professional acquirements. You must be respected not merely in your character of a social friend, but in your calling as a physician. The accomplishments which may render you acceptable in the parlor are not always those which would make your visits longed for and valued in the chamber of sickness.—*Prof. J. L. Crawcour's Valedictory Address to Grad. Class of N. O. School of Med., Session* 1865-6.

The Cholera—In its first visitation of the civilized world, broke out in the following places at the dates annexed: at Moscow (Russia), Sept. 28, 1830; Sunderland (England), Oct. 28, 1832; Quebec (America), June 8, 1832; New York, June 28, 1832; Philadelphia, July 30, 1832; Louisville, Sept. 18, 1832; Cincinnati, Sept. 30, 1832; Nashville, Dec. 18, 1832. In Cincinnati the cholera had ceased almost entirely on the first of December, and there was none of it (unless, perhaps, two or three cases) during the winter of 1832-3. In April or May next, it again broke out, and prevailed in Cincinnati with considerable activity during the summer. In the winter it was again silenced; but in the summer of 1834 again broke out; but in the latter part of the season was absent entirely; when, on a certain day in October, it again burst out in a large number of cases in one night, after which it entirely disappeared.

Eighth Annual Report of the Chicago Charitable Eye and Ear Infirmary.—This institution, which was incorporated in February, 1865, by a special act of the General Assembly of Illinois, now has, with its recent enlargement, a commodious hospital building in a healthy portion of the city, near the lake, with all the conveniences necessary for the comfort and welfare of patients. During the year ending May 1, 1866, five hundred and sixteen patients have been under treatment, making an aggregate of two thousand six hundred and forty-two that have been treated since the opening of the infirmary in 1858. The annual subscriptions have amounted to $2328.27, and valuable donations of fuel, provisions, carpenter work, clothing, medicine, lumber, books, etc., have been received. The Surgeons are: *Consulting,* Profs. D. Brainard and J. W. Freer; and *Attending,* Drs. Edward L. Holmes and Edwin Powell.

Havana Quarantine.—Our Consul-General at Havana writes: "The quarantine, or rather observation, is now reduced to five days for vessels from New Orleans, Philadelphia, Baltimore, and New York, and three days for those coming from other ports of our Union, provided they come with clean bills of health, with all on board in good health, and that no sickness has occurred on the passage."

PROGRESS OF THE CHOLERA.

In Europe.—In London (England), the number of deaths from cholera for the week ending September 1 was 198.

In the United States.—Dr. Edwin M. Snow, the efficient Superintendent of Health, Providence, R. I., in the course of his official report to the Mayor of the city (September 18), uses the following language:

"A statement of the facts in relation to all the deaths from cholera that have occurred this year in the city must convince all that there is no ground of alarm thus far. The whole number of deaths to this date is *twelve*, and the following shows the date of death, age, location, color, and parentage of each case:

Date.	*Age.*	*Location.*	*Color.*	*Parentage.*
Aug. 6,	39 yrs.	Cove Barracks,	Col'd,	Amer'n.
" 6,	31 "	" "	"	"
" 24,	23 "	West River street,	White,	"
" 29,	35 "	121 Dorrance street,	"	Irish.
" 30,	31 "	52 Carpenter street,	"	Amer'n.
" 30,	60 "	119 Dorrance street,	"	Irish.
Sept. 5,	42 "	108 Borden street,	"	"
" 8,	36 "	122 Eddy street,	"	"
" 10,	35 "	" " "	"	"
" 11,	50 "	Cor. Thayer & Meet'g,	Col'd,	Amer'n.
" 16,	33 "	189 Broad street,	White,	"
" 16,	58 "	433 Benefit street,	"	"

"Ten were males and two were females.

"An examination of the dates in connexion with the localities of these deaths must convince any one that there is nothing which indicates the least tendency to concentration of the disease; nothing which shows in it any tendency to spread; nothing which indicates any epidemic tendency.

"In ten of the twelve cases, the disease was attributed, by the patient, to imprudence in eating; in seven cases the persons were very intemperate.

"It will be seen that not a single case has occurred in the localities where the disease was most prevalent in former years.

"We may have local outbreaks like that in Bristol, and we probably shall have some more cases; but thus far there has been nothing which should excite the slightest general alarm among the people."

In the city of New York, we have among the gratifying signs of a retreating pestilence, the closure of the Red House Hospital, the discharge of several assistant Sanitary Inspectors, a diminution in the clerical force of the Health Board, and the transfer of certain property at one time indispensable to the Police Department. The Brooklyn Twelfth Ward Hospital has also been closed.

We may also state that the hospital ship *Saratoga*, formerly a sloop-of-war, which was put at the service of the health authorities last spring, and which has been used as a hospital ship in the lower bay, has been towed up to the city and turned over to Admiral Bell, of the Brooklyn Navy Yard. Still, the ship *Gettysburgh* brought a new invoice on the 19th ult. The cases are, however, milder in form, and have occurred at longer intervals. During the week ending September 20, there were fifty-one cases and twenty-nine deaths, grouped "within narrow and filth-defined limits;" since then there has been a still further decrease to an average of a case per diem.

Brooklyn, for the corresponding period, reported twenty-nine cases and fifteen deaths.

The Newark (N. J.) Board of Health report a few cases in Cabinet street, where the disease first appeared, September 21, and hope to "stamp out" the germs by thorough disinfection.

There was one death from cholera in Louisville, Ky., on the 26th ult. There were twenty-six deaths in Nashville, Tenn., on the same day, and twenty-two on the succeeding day; nine in Memphis on the 26th ult., and twenty-four on the 27th ult. In the two last cities the ravages of the disease appear to have been confined to the more indigent classes.

There has been, also, a recent development in Jacksonville, Apalachicola, and Cedar Keys (Fla.), the victims being found principally among the negroes in unhealthy quarters.

Dr. Read, City Physician of Boston, reported a death by cholera, on the 11th ult., at East Boston, traceable, in his opinion, to Philadelphia; and on the 15th ult., Dr. Augustus A. Gould, the celebrated naturalist and physicist, fell a victim. The following account of the case by his attending physician, Dr. Cabot, we quote from the *Boston Medical and Surgical Journal:*

"Dr. Gould had been as well as usual and attending to business, when about noon of Friday, the 14th inst., he had two watery discharges from the bowels. During the afternoon he had three or four more copious discharges of the same character. Between six and seven o'clock vomiting began, and shortly before eight o'clock very severe cramps occurred in the feet and calves of the legs. About a quarter past eight he had a very copious discharge, more than half filling the vessel, presenting the rice-water appearance, *but having some fæcal odor*, and containing some small particles of fæcal matter stained with bile. In the course of an hour these symptoms were gone, and the patient seemed quite comfortable and had a good pulse. He had no more diarrhœa, or cramps, or vomiting, except that he vomited a dose of aq. ammon. There remained an unpleasant coldness of the hands; and from that time the patient steadily failed. At two A.M., he was in collapse—the face and hands shrunken and livid, the skin cold and clammy, the radial pulse absent, the voice almost inaudible. He was restless and uneasy, took ether occasionally, apparently to relieve the uneasy, distressed feeling which accompanies collapse, and notwithstanding the coldness of the skin could not bear the encumbrance of the bed-clothes, even the lightest. All efforts at restoration by stimulants, administered both by mouth and per anum, were without effect. He continued steadily to fail, and died at five A M."

Certain other reported, but unauthenticated, cases have also occurred near Northampton street, in Roxbury and Boston.

The Washington (D.C.) Board of Health reported its first case of the disease on the 2d inst. It was that of a gentleman who arrived from Richmond (Va.) on the 28th ult. He recovered, but several fatal cases have since been reported.

Errata.

On page 358, eleventh line, for J. S. read *J. Z.* Twelfth line, for Lawrence read *Laurence.* Fifteenth line, for *great work* read *writings*, and for Roseburg read *Rosebrugh.*

Original Communications.

LARYNGOSCOPY.

By J. SOLIS COHEN, M.D.,

OF PHILADELPHIA.

No. IV.

Use of Anæsthetics.—The induction of complete anæsthesia appears inapplicable to the requirements of laryngoscopy. Light has to be kept concentrated over a limited surface in a special portion of the fauces, and the position of the patient should not be subject to change. Ether, which intoxicates and causes violent muscular effort, is therefore inapplicable. Chloroform, though gentler and prompter in its action, may produce serious after-effects, especially as a large number of the cases of laryngeal trouble will be found complicated with constitutional disease. The frothing at the mouth from the increased secretion of saliva, especially in etherization, creates the necessity of cleansing the parts with brush and sponge, before the laryngeal mirror can be introduced. The inhalation of the nitrous oxide gas would offer more favorable results, from the promptness of its action, the quietness of the condition induced, the brevity of its duration, and the immediate and complete recovery from its effects.

Anæsthetics seem more particularly applicable in the examination of patients coming from a distance, and desirous of returning home soon. In these cases, where the extreme sensibility of the parts precludes success by the ordinary methods already detailed, and it is desirable to obtain some knowledge of the general condition of the structures, complete anæsthesia may be produced; but the examination will be much less thorough, and its results less satisfactory, than if this condition had not been induced; for the active and intelligent coöperation of the patient in maintaining the proper position of head, tongue, etc., and in the performance of various voluntary physiological movements, as alterations in respiration, vocalization, etc., is always desirable as a medium for bringing certain structures within the field of vision, and often indispensable. When important mechanical interference is required, this intelligent coöperation becomes particularly necessary.

By the employment of the methods narrated, modified as the experience of the operator will from time to time suggest in individual cases, a satisfactory examination may be procured in the vast majority of cases during the first interview, and frequently at the very first introduction of the laryngeal mirror. A skilful laryngoscopist will succeed at the first interview with nine-tenths of the cases presenting. Of course, familiarity with the use of instruments, the management of the light, natural and acquired tact, increases with experience, as does ingenuity in taking advantage of occurring circumstances, such as various voluntary or involuntary muscular motions of the parts. In about five per cent. of the cases presenting, according to Semeleder, it will be found utterly impossible to make an examination. The writer is not prepared to indorse this statement; for the results achieved by different laryngoscopists will vary according to the nature of the cases which may happen to fall under their individual observation.

Young children and nervous females, nervous men too sometimes, are very difficult to manage, and often weary out one's patience, or try it to its limit. Slight cases of distress, too, will often cause a great deal more difficulty and annoyance in the examination than cases of severity and actual danger; for a patient threatened with suffocation, or suffering from an affection that produces real distress, will be so anxious to receive relief, that with the effort of his will he will coöperate with the surgeon to an extent sufficient to render comparatively easy, manipulation which at first sight had appeared difficult of execution.

Having overcome the obstacles to the examination, and having succeeded in introducing the mirror in a favorable position, it is necessary to know *what is likely to be mirrored*, in order that the structures may be recognised. And here the beginner must keep impressed upon his mind that *it is an image of the parts that is about to be inspected, and not the structures themselves*, as would be the case were the larynx, like other outlets of the body, subject to examination by speculum.

The parts reflected are seen inverted in the laryngeal mirror, but that is the only change. Those structures on the right side of the patient's body are seen in the mirror on the same side of the body, and of course at the left hand of the observer, to whose eye the appearance of things is the same as the anterior portions of the laryngeal structures themselves would produce if viewed from behind through an opening into the pharynx, the size of the laryngeal mirror. The mental conception of the actual position of one's own larynx must not be retained as the standard of comparison, unless the larynx be imagined with invisible eyes looking at its own image in the laryngeal mirror.

The structures brought into view most prominently are, the epiglottis, the arytenoid cartilages, the vocal cords, and the anterior inner face of the larynx; but many more important structures are reflected, though not so readily recognised until after considerable familiarity with the appearances presented.

The structures which can thus be examined are, the posterior portion of the base of the tongue; the posterior surfaces of the anterior pillars of the fauces, and their attachments to the sides of the base of the tongue; the lateral ligaments connecting the tongue with the hyoid bone; the ligaments connecting the tongue with the epiglottis, and the lingual sinuses between the middle and two lateral ligaments; the posterior palatine arches running downwards and backwards to the sides of the pharynx; the ligaments connecting the epiglottis and the pharynx; the lateral ligaments connecting the epiglottis to the hyoid bone; the epiglottis itself, its free anterior or lingual surface, its upper and lateral borders and crest, and the whole of its posterior or laryngeal surface; the capitulum of the hyoid bone; the ligamentous folds connecting the sides of the epiglottis with the arytenoid cartilages, with the cartilages of Santorini at their apex, and inclosed within the folds, a few lines from their arytenoidal attachment, the cuneiform cartilages, or cartilages of Wrisberg; the fold between the two arytenoid cartilages; the pear-shaped sinuses just outside of the laryngeal aperture, contained between the exterior surface of the quadrangular membrane of the larynx and the thyroid cartilage; the posterior wall of the pharynx down to its attachment to the cricoid and arytenoid cartilages, where the œsophageal entrance appears as a very narrow groove; the upper cavity of the larynx and its component structures; a portion of the lower cavity of the larynx; and sometimes the anterior wall of the trachea for a greater or less distance, under exceedingly favorable circumstances down to the bifurcation of the tube, and in exceptional cases the continuity of the right bronchus.

It will be understood that it is impossible to bring all these enumerated structures into view at one and the same moment; but by suitably altering the direction of the mirror, so as to reflect the light upon the various

structures, they can all be subjected to vision, and their physical condition explored.

AUTO-LARYNGOSCOPY—EXAMINATION OF ONE'S OWN LARYNX.

It is highly necessary for those who determine to attain considerable skill in the practice of laryngoscopy, to acquire the facility of examining their own laryngeal parts. This is not so much an aid in learning how to manipulate upon patients, as represented in many articles on the subject; for, whatever method may be employed, the movement required to introduce an instrument into one's own throat is entirely different from that employed in operating upon another; besides which, we shall rarely encounter a person who will have control over his head, or over his laryngeal and pharyngeal structures, equal to that acquired by an auto-laryngoscopist. It is rarely, too, that one will be able to demonstrate readily upon a patient all that he can observe in his own person; for the patient has not the practice of the auto-laryngoscopist, nor the same interest in it; while, in addition, his organs are seldom in a state of complete normalism, or he would have no occasion to consult the practitioner.

Many auto-laryngoscopists have acquired the power of exhibiting their larynges and contents to a wonderful extent. By reason of continued practice, the involuntary muscles move intuitively in obedience to his will, while the operator as intuitively retracts his neck or elongates it, and performs various other movements which would be absolutely impossible in a patient without long training. He who would attain skill in examination of patients must therefore commence at once, as soon as he has mastered the regional anatomy of the parts concerned, and had some preliminary practice on the cadaver, a model, or an excised larynx inclosed in a box, or attached to a skull, upon a second person. Two or more individuals studying this art together can alternate for each other as patient and physician.

But auto-laryngoscopy is of immense value to the science of the subject, in enabling us to observe the effects, natural and acquired, upon the organs depicted, of various normal and abnormal physiological efforts, such as variations in respiration, intonation, vocalization, and cantation; the phenomena of sighing, coughing, retching, and deglutition, etc., as well as the study of the muscular movements necessary to bring into clearer view any particular portion of structure. For such investigation the inquirer will find no more patient patient than himself.

Several modes of auto-laryngoscopy may be adopted. The mode usually employed by the writer is to take the seat ordinarily occupied by the patient, and holding a hand-mirror so that its margin shall be either below the reflector or at one side of it, to direct the light into his fauces and introduce the mirror with the disengaged hand, when the image is at once seen in the hand-mirror. This method is simple and convenient for a mere examination; of course, to introduce an instrument into one's own larynx, it would be necessary to have the looking-glass supported in the proper position, so that both hands could be employed with instruments. In this way three or four persons, standing in front of the auto-laryngoscopist, behind the mirror in his hand, can look past it at the image in the laryngeal mirror, while those standing behind him will see the image with him in the hand-mirror. Of course it will be understood without explanation that the differing angles of reflection and vision will prevent all the observers from seeing the same image exactly. Attention is again called to the fact that, notwithstanding the laryngeal image receives in auto-laryngoscopy a second reflection before it can meet the eye of the observer, and on that account must be somewhat less distinct than the image observed in the laryngeal mirror itself, the auto-laryngoscopist does not use the perforation of his reflector; but this is placed a considerable distance in front of him, and the light by which the image is conducted to his eye is first reflected upon the hand-glass from the laryngeal mirror, not only at quite a distance from his eye, but totally removed from direct vision and hidden deep in the cavity of the mouth. This is a strong ocular demonstration that there is no necessity for a perforated reflector. With a perforated reflector before his eye in this method of auto laryngoscopy, the observer could not obtain a distinct view of the image at all. With the light at the side of the mirror in which the observer is to see the image of his own larynx, so that its rays fall upon a reflector attached to the head, there is some difference, but he will find looking through the perforation satisfactorily an exceedingly difficult matter.

The method of auto-laryngoscopy practised by Czermak is as follows: The reflector is placed upon a stand eighteen or twenty inches in front of the observer's mouth. A quadrilateral mirror, also working on a stand, is placed a foot nearer, but in such a manner that its upper edge is about level with the lower edge of the reflector behind. The flame of the lamp having been placed near the quadrilateral mirror, the observer throws the light into his fauces with the reflector, and, having introduced the laryngeal mirror, sees the image in the quadrilateral one. Previous to his employment of the ophthalmoscopic reflector, Czermak performed auto-laryngoscopy by direct light in front of the mouth, holding a plane mirror in such way that the light should pass beneath the mirror and between the hands into the pharynx.

With sunlight the auto-laryngoscopy can be made with the reflector or without it, according to circumstances or convenience.

An ingenious method of auto-laryngoscopy, teaching the observer at the same time the proper management of the light and of the frontal reflector in the examination of patients, has been introduced by Dr. George Johnson. His own description, copied from the London *Lancet* for August, 1864, is as follows:

"One of the most useful means of acquiring skill and confidence in the examination of the larynx is the practice of auto-laryngoscopy—that is, the examination of one's own larynx. Various methods of auto-laryngoscopy have been proposed and practised. The simplest and most satisfactory plan is one which is very easy of execution, and which requires no special apparatus. The concave reflector on the forehead, and the laryngeal mirror which is used in the examination of others, with a common looking-glass and a lamp, constitute the whole of the apparatus. The method of operating is this: Sitting at a table of convenient height, I place a looking-glass at a distance of about eighteen inches in front of me, and a moderator or gas-lamp on one side of the glass, but two or three inches further back, so that the light may not pass directly from the lamp to the mirror. Now, with the reflector on my forehead, I direct the mirror, as it were, into the open mouth of my own image in the looking-glass; then introducing the laryngeal mirror into my mouth, I see the reflection of my larynx and trachea in the glass before me, and any one looking over my head or shoulder can see the image at the same time. This method, therefore, serves for auto-laryngoscopy and for demonstration; in other words, the experimenter can, by this means, see his own larynx and show it to others.

"This method certainly possesses some advantage over that employed by Czermak. In the first place, Czermak's plan requires a special apparatus, which is too complicated and costly to allow of its coming into general use. Although I possess Czermak's instrument for auto-laryngoscopy, I have quite ceased to use it, because I find the other plan easier and more satisfactory. I find, for instance, while I am holding the laryngeal mirror with my right hand, and changing the position of my head so as to obtain different views of the larynx, I can with the greatest readiness make any required change in the direction of the light by adjusting the frontal reflector with my left hand. This adjustment of the light cannot so readily be made with Czermak's apparatus, on account of the distance at which the reflector is fixed on a brass stem opposite the experimenter.

"For beginners in the art of laryngoscopy, this method affords a very useful means of training and practice. One of the chief difficulties at first is to keep a steady light in the patient's mouth while the laryngeal mirror is being introduced. Now the student, after arranging his looking-glass and his lamp, may direct the light from the frontal reflector into his own open mouth in the looking-glass. This process differs scarcely at all from that which he will have to practise on his patients. Then, having learned to keep the light steady, he may practise the introduction of the faucial mirror, and he will soon see the interior of his own larynx and trachea. I have seen several of my medical friends and pupils succeed in doing all this within less than half an hour of their first attempt.

"It is important to observe that, in practising this method of auto-laryngoscopy, both eyes may be protected from the glare of the lamp. The lamp is most constantly placed by the side of the glass to the left of the operator. The right eye is then shaded by the lower margin of the reflector on the forehead, and the left eye may readily be shaded by one or two fingers of the left hand placed at the edge of the reflector. The fingers thus placed serve at once as a shade for the left eye, and a means of moving the reflector when the direction of the light has to be changed. If the experimenter desires to show his larynx to several persons at once, he can readily do this by having the mirror in front of him of small size, about three inches square, and fixed at a convenient height; the small flat mirror belonging to Czermak's auto-laryngoscopic apparatus may be used for this purpose. Thus, while two or three persons standing behind him can see the reflection of his larynx in the glass, two or three others standing in front of him, and looking over the top and by the sides of the glass into his mouth, may see the direct reflection of the larynx from the faucial mirror."

It must be remembered that in this method of Dr. Johnson the image is not quite as distinct as in the other methods described, because the rays of light do not pass to the laryngeal mirror directly from the reflector, but are reflected from the looking-glass in which the image is seen, and upon which the light is directed by the reflector.

Medical Uses of Sulphurous Acid Gas.—Dr. James Dewar (*Dublin Medical Press and Circular*) speaks highly of the benefit of using the sulphurous acid fumes in the treatment of typhoid, ephemeral, and scarlet fevers, of diphtheria, gout, and rheumatism. He saturates the atmosphere of the patient's room with the vapor.

Rinderpest among Sheep and Pigs.—A kind of rinderpest has broken out in Yorkshire, England, among sheep and pigs.

INFANTILE CONVULSIONS.

By A. P. MERRILL, M.D.

In city necrology, the term "infantile convulsions" is generally made to include all the convulsive diseases of children that may be reported, whether they appear in the form of trismus or tetanus nascentium, or other kinds of tonic and clonic spasms, ending in destruction of life. The disease, in one form or another, prevails extensively, at all times and in all places, throughout the habitable globe, causing great mortality.

The causes which have been assigned to it are so many and various that it may well be doubted whether its etiology is better understood now than at first. Much has been written of its pathology, also, but with such uncertain aim that scarcely any two authors agree, except in regard to the fact that a certain disorder of the nerves exists, producing more or less of vascular congestion. The treatment of the disease has been so varied, and remedies have been so multiplied, with such small influence over results, that grave doubts are entertained by many as to the efficacy of medical treatment of any kind; and we even find prominent physicians claiming, as the result of their experience, that it is often advisable to intrust the suffering victim to the curative powers of nature alone; and contending, especially in cases affecting very young infants, that all known remedies are wholly ineffectual. In more advanced childhood, spontaneous recoveries more frequently take place, and the disease is often cured by active medication; but the new-born babe is doomed by convulsive disease to almost certain death. So well is this understood that in many cases a physician is not called in, and remedies of any kind are only applied sparingly and without skill.

In regard to causes, we have been strangely told of certain displacements of cranial bones, as if in distrust of nature in preparing the head for the pressure of birth, and for recovery afterwards; and quite as strangely of the careless excision of the cord beyond the ligature, where cutting or tearing could have no influence over the point of junction with the body; and we have been told of exposure to cold, of filthy habits of life, of hereditary taints, of indigestible food, constipation, diarrhœa, worms, and teething; and a vast variety of remedies have been devised for these particular exigencies, but the death-rate is not decreased. In all large cities asylums are provided for poor and homeless infants, nurses are duly trained and instructed, physicians of eminence devote their time to the treatment, the materia medica is explored for remedies, nostrums are invented and applied without limit, all phases of charlatanry claim the confidence of the public, and still the death-rate remains the same. Convulsions continue to decimate the human race in early childhood, and to people the cemeteries with infant dead.

Like many other fatal diseases, infantile convulsions produce the largest mortality in hot climates and in marshy districts. This, coupled with the fact that in many cases the periodic movement is undoubted, and with the equally important fact that whenever an intermission is secured antiperiodic remedies are most efficacious in affording relief, affords us good reason for believing that these convulsive diseases are of a periodic character, and due to malarial influences. But the greatest mortality is with new-born babes, sometimes attacked as early as the second day after birth, and these rarely survive the first convulsion. With them, therefore, there is no means to determine the question of periodicity, for there is no reaction, no intermission, and no return of the disease as in intermittent fever. It may be supposed, too, that the period of exposure and of incubation are in such cases too short. Yet it is

by no means improbable that the exciting cause may have reached the infant through the medium of the mother, or that under hereditary influences the predisposition of the child may have been such as to reduce the incubative period to a single day. Be this as it may, there is abundant evidence that the mother often suffers from periodic fever, while her infant is suffering with convulsions, and that antiperiodic medicines have been found remedial and prophylactic for both.

Admitting the periodic character of infantile convulsions, we should be led to expect that the disease would most abound in paludal districts; but observation shows that it is scarcely less common in large cities. A late writer on tetanus nascentium in this city states that the disease is more common than tetanus at any other age, or indeed in all ages; that more die of tetanus in the first year of life than subsequently; and that death in the nursing infant occurs, with very few exceptions, in the first two weeks of life. This prevalence of infantile convulsions in large cities is one among the many indications of the greater prevalence of periodic diseases in such cities than is generally supposed; and we are not without many proofs of such prevalence in the existence of other diseases, also, with this periodic complication. In New York periodicity certainly exists in many of the diseases of childhood, and also in the diseases of the adult subject, to about the same extent as in Southern cities. The principal difference appears to be in the greater obscurity of the periodic movement, and perhaps, also, the more common existence of intermittent neuralgia in New York. This general existence of periodicity being conceded, as I think it must be, we are prepared to believe that the great mortality from infantile convulsions, which generally places this disease next below consumption in the weekly necrology of the city, may proceed from the disordered innervation and congestions which constitute the cold stage of fever. We have further proof, also, in the success of the quinine treatment in these convulsive diseases, which is resorted to here as well as at the South; but in very young infants quinine is not often given, for the reason that no opportunity is afforded by an intermission. The first convulsion generally proves fatal, as it frequently does, indeed, in children of one to five years of age.

In the South, infantile convulsions are especially fatal to negro children, by reason of the want of vital energy and resilience in the constitution of the negro race. Negro children attacked within the month nearly always die in the first paroxysm, and at later periods they are more likely to succumb without reaction than white children of the same age. The pathogeny of the disease is, no doubt, the same in both races, and the remedies are also the same, but white children are more likely to have the advantage of quinine in the intermission, when it is most effective. The negro mother, on many Southern plantations, before emancipation, was very liable to periodic disease in the latter months of pregnancy, and, unless previously relieved by treatment, the chill followed soon after delivery, and sometimes with convulsions; and the infant in such case was almost certain to be lost by lockjaw, so called. Preventive treatment, therefore, became important; and it was a common practice, before quinine came into use, to put such women upon the use of bark and serpentaria during the last month of gestation, and to continue the remedy for a month or more after confinement, the child being also treated in the same manner from the day of its birth. Quinine has been used in the same way, and with equal success. The women being excused from hard labor, as customary, during these two months, and suitably cared for in other respects, the dangers of the puerperal state to both mother and child were generally averted.

In the treatment of infantile convulsions, I have known physicians to depend mainly upon quinine, given generally by enema, during the continuance of the spasms; but the more common practice is to give emetics of ipecacuanha, and to apply mustard and hot bathing, with stimulating and purgative enemata. Mustard is a powerful remedy in this and other congestive diseases. I have used it with satisfaction in baths, by sinapisms, by enema, and by the stomach. But all these means are inferior to bloodletting in giving relief to the spasms. Great care and skill are required, however, in bleeding young children in congestion from chill, lest they sink under the operation, and die from sudden exhaustion. Blood must be drawn in such cases in small quantity at a time, and the operation must be repeated as recuperation takes place, and the child can bear it. It is prudent, too, to conduct the depletion under pretty active stimulati n. In proportion to the severity of the chill and the congestion accompanying it, is the danger of prostration from the sudden loss of blood; but in the same proportion is the necessity for the remedy, and its efficacy when properly applied. Reaction is not only secured and convulsions relieved, but the resulting febrile exacerbation is less violent than under the other treatment above referred to, and the subsequent intermission is more complete.

In the selection of cathartic remedies I have found calomel to be the safest and the most efficient, not only in this but also in most other diseases of children, and the younger the child the more it is to be preferred over other remedies of this class. An infant may take a quarter to a half grain of calomel the day it is born, with less risk of injurious effects than from any other cathartic. Opium, on the contrary, which is so frequently resorted to, I consider an exceedingly dangerous medicine for infants, and especially when they are very young. The cordials and soothing-syrups in such general use depend upon opium in some form for their composing effects, and frequently they do compose and soothe the suffering babe, to the great relief and satisfaction of nurses, but to the injury of the child, sometimes even to the destruction of life. The healthy action of the digestive organs, so necessary to the health of all persons, is especially so to infants, and nothing so readily deranges infantile digestion as opium.

From all the teachings of experience in regard to this matter, there seems to be scarcely room for doubt that infantile convulsions, which are so prevalent and destructive to life, are, when not dependent upon organic lesion or traumatic irritation, mostly of a periodic character, and produced by the congestions consequent upon the cold stage of fever. In the adult subject the tendency of these congestions to produce convulsion is very strong; and in the puerperal state, in yellow fever, and in the graver forms of bilious remittents, general convulsions are not an uncommon concomitant of the initiatory chill. Females are more liable to febrile convulsions than males. Children of three to five years of age are more subject to them than adults; and it is rarely the case that a child less than a year old suffers with any considerable severity without more or less of spasmodic action, showing that the predisposition to convulsions is in some proportion to the degree of nervous irritability. In young infants the premonitory signs of an attack are crying and refusal of food, followed by coldness and a purple hue of the hands and feet, with clenching of the fingers and toes.

It may be objected that the persistency of spasmodic action in young infants is evidence against the existence of periodicity; and it may be contended that the subsidence of the chill should be followed by an intermission of the convulsion. But it must be considered that

spasm once produced by congestion of the nerve centres, or of the larger blood-vessels, as the result of disordered innervation, soon becomes habitual, and may continue after the primary conditions producing it are measurably relieved; or, it may well be supposed, that the relief of congestion on subsidence of chill may be only partial, still continuing to exist to such extent as may be necessary to keep up spasmodic action, just as many of the symptoms of chill in the adult subject often remain after reaction is established. Without entire relief of the abnormal nervous action, the irritable muscles of infants will continue liable to convulsive movements until the vital powers are exhausted, or the convulsions will intermit for short periods of time from temporary exhaustion, to recur again with increased energy as cerebral and nervous power are partially restored by comparative rest. The disease, in fact, loses its periodic character in the intensity of the morbid lesions produced by it, and becomes a disease of local congestions and inflammations, with convulsive manifestations as their effects, and as evidences of their existence.

The most effective remedy yet discovered for convulsions arising from congestion is chloroform, used exclusively as an internal remedy. Its full physiological effect, as evidenced by sleep, is certainly remedial of that disordered innervation which causes congestion and chill. Whether the disease attack the child during the first week or month, and is called trismus or tetanus, or seize upon older children in the form of tonic or clonic spasms, chloroform internally, in proper doses, always affords the best chance of relief; and when relief is thus obtained the paroxysm is not likely to return. Preventive measures should not, however, be neglected, especially in malarial districts. Quinine should be given to both mother and child, and, if practicable, there should be a change of residence to avoid the influence of malaria, for it is difficult to guard against a return of the disease, especially at septenary periods, while the cause is constantly acting.

Chloroform is best given to young children in milk; but if the spasm is severe and persistent, deglutition is proportionally difficult, and in that case the remedy may be poured gradually into the mouth without the admixture of vehicle, taking care that it does not spread over the skin of the chin and neck. The mucous membranes suffer no injury from this contact of pure chloroform beyond the very temporary effect of the stimulation; but the skin sometimes is vesicated with subsequent ulceration. I have given to infants within the month from one to five drops every fifteen or twenty minutes until the spasms were relieved and sleep secured. For older children the dose may be increased in proportion to the age and the vigor of constitution, and be repeated according to the intensity of the disease. I have given a teaspoonful to a child three years old, undiluted, with the happiest effect; and to one five years old I have given the same quantity, and for want of entire relief repeated the dose in twelve minutes, with success. This was a case of severe and long continued convulsions, with great prostration of vital energy, which seemed to require such quick repetition of the dose lest death might ensue. The child slept and recovered.

In my treatment of various forms of disease by the internal use of chloroform, given in hypnotic doses, it has sometimes happened that the patient has afterwards enjoyed much better health than previously. This, taken in connexion with the fact that chloroform is powerfully destructive of insect and animalcular life, and in connexion with the success of the remedy as a vermifuge, affords reason to suppose that one of the important benefits to be derived from such treatment is to rid the system of worms, and of every kind of animalcule and morbific germ, whether existing in the cavities or the solids and fluids of the body; for the stomach and bowels cannot be charged for any length of time with the vapor of chloroform, into which the doses given are very soon converted, without pervading the whole circulatory system, and making itself manifest in every secretion and excretion of the body. No extraneous vital organism can by any possibility escape its destructive influence. This gives to the internal exhibition of chloroform a range of usefulness far exceeding that to be derived from its remarkable efficacy in disordered innervation merely, and makes it the most valuable of all the remedial agents yet known to man. Indeed, when we consider the large proportion of fatal diseases, both to men and animals, which are supposed to be attributable to the influence of entozoa and various kinds of animalcula, this feature in the internal use of chloroform possesses a value which can scarcely be overestimated.

141 Macdougal street, N. Y.

Original Lectures.

ON AMPUTATIONS.

By FRANK H. HAMILTON, M.D.,

Professor of Military Surgery, Fractures, Dislocations, and Principles of Surgery, in the Bellevue Hospital Medical College, etc., etc.

Lecture II.

In considering the circumstances which may demand removal of a limb, I shall not now speak of gangrene, for the reason that I have discussed that subject already in another part of my course.

III. We come next to the consideration of the question as to the point at which the amputation should be made. Surgeons have been in the habit of speaking in regard to amputations of various points as "points of election." Nearly all these points of election have been from time to time changed or rejected. In general terms, the point of election must be considered to be that point at which the operation can be made with most safety to the patient and yet save the most of the limb. In fact, modern surgery has established a formula upon which to declare the "place of election" much more simple than this. It having been observed that the fatality of amputations is diminished in proportion as we recede from the body, the practice is now very generally adopted to amputate at that point at which we can save the most of the limb.

I do not know but that the old Anglo-Saxon law regulating the value of a limb had some application to unskilful surgery, or to a violation of the principle now stated. The value of a leg was fifty shillings, while a great toe was only ten shillings; a little finger was eleven shillings, and a finger-nail only one shilling. If the citizen who accidentally destroyed any of these members had to pay according to these rates, it is quite probable that the surgeon who unnecessarily sacrificed a limb or a portion of a limb would have to pay in the same ratio.

But there are some exceptions to the rule that we must save as much of the limb as possible. For example, if it is a question whether you will amputate a hand between the first and second row of carpal bones, or at the wrist-joint properly so-called, you will not hesitate to make the amputation at the wrist-joint. I mean to say that in case you may be able to save the first row of carpal bones if you wish, and the question is whether you shall do so or whether you shall amputate at the wrist-joint, taking off an inch more of the member, you ought to amputate at the wrist-joint; and for this reason: the medio-carpal articulation is very irregular; it is therefore an extra-difficult operation to make; and

in addition there is much danger that, having made amputation in the medio-carpal articulation, inflammation and suppuration will attack the synovial surfaces which surround the first row of carpal bones, and that they will be subsequently dislocated by this suppurative action. It is not entirely certain in my mind, also, but that you ought to make a similar exception in regard to the elbow-joint. The question will be: Shall the amputation be made immediately below the elbow-joint, it being apparent that there is sufficient sound flesh to enable you to do so, or at the articulation? If the amputation is made just below the joint, you may save the attachments of three important muscles, the triceps, brachialis anticus, and biceps; while if made at the joint, you sacrifice the attachment of these muscles, unless you saw off the olecranon process, and thus save the attachments of the triceps. On the other hand, it is very probable, but I have no facts to sustain this supposition, that making amputation so near the joint, and below, you will endanger the occurrence of synovitis in the elbow-joint, and such subsequent complications as will hazard the life of the patient. This is not a plain case of exception, but it is one in which you may properly entertain a doubt.

When we come to the lower extremities, I would say again (this is my opinion, gentlemen, and it is not sustained by the opinion of all surgeons), if it is a question whether to make amputation in the medio-tarsal articulation, the operation called Chopart's, or amputation at the ankle-joint, I declare my decided preference for the latter; and for two reasons: one is, I observe that amputations at the medio-tarsal articulation are very liable to be followed by deformity of the stump, the heel being often drawn up by the action of the gastrocnemii; next, I observe that not unfrequently inflammation invades the capsules of the remaining tarsal bones, rendering a re-amputation necessary. I do not, therefore, advocate medio-tarsal amputation; and it is the prevailing opinion in this country that it is not a good operation, but that it is better to resort to Syme's.

Again, if the question is presented, Shall we amputate at the knee-joint or immediately below? I would answer it without hesitation, gentlemen, at the knee-joint. It has long been observed that amputation just below the knee-joint is an extra-hazardous operation; and the reasons are apparent. The amputation is made immediately below the largest joint in the body, a joint particularly prone to suppurative and ulcerative action. Amputation being made at this point, it is not unreasonable to assume that the section of the bone, of the tendons, ligaments, and other soft parts, has inflicted some injury, directly or indirectly, upon the capsule of the joint; and that the inflammation resulting from the injuries will extend to the interior of the joint. I have often witnessed this result even when the amputations have been made at points much lower. This explains why this operation has been found extra-hazardous. I do not know that it has been compared statistically with amputations at the knee-joint; or that the comparison could be very well made at the present time, because many more amputations have been made immediately below that at the knee-joint; but my convictions, derived from personal observation and experience, are strong upon this point. I prefer amputation at the knee-joint.

I think these are all the exceptions we can make, in anything like general terms, to the rule directing us to save as much as possible. We certainly no longer adopt that rule so long enjoined by surgeons in relation to amputations in the leg, viz. that when a sacrifice of the foot was demanded, the amputation must be made either in the upper or middle third of the leg; these points being regarded at one time as the only points of election, the preference being given by the advice of Paré to the upper third, or to a point just below the knee, and for these reasons: First, because in operations made through the lower third the fleshy coverings are less abundant, and the end of the bone must be closed in almost entirely by integument; so that no proper cushion could be formed upon the end of the bone. Second, the section of the tibia low down was more apt to be followed by necrosis than when it was made higher in the limb. Third, the artificial limb makers preferred an amputation just below the knee, so that the patient could flex the stump, and receive the weight of the body directly upon the knee.

All of these arguments have lost their weight. A fleshy covering for the end of the stump is not desired; necrosis of the tibia divided at the lower end is too infrequent to demand attention; and artificial limb makers no longer prefer the knee as a bearing, provided they can have a portion of the limb below; and the longer the lever the more useful will be the limb. So they tell us.

I believe that not more than fifty per cent. were saved in amputations at Paré's point of election, just below the knee, while not more than fifteen per cent. die after amputations above the ankle.

IV. Next as to the method in which you are to make an amputation. Upon this point, also, there have been differences of opinion. In all the early history of surgery amputations were made by some one or other of the various forms of circular incision. The flap amputation was introduced by Lowdham, I think, in 1679, about two hundred years ago, but still the circular operation was almost universal until about the year 1820. The flap amputation has therefore in reality been under trial only about fifty years. It received its first impulse from the Edinburgh school, from such men as Liston, Lizars, Syme, and Fergusson. Upon the continent of Europe it was never so favorably received as in Great Britain and America. At the present moment, however, probably more than half the surgeons of the world give it their preference.

The arguments in favor of the flap method are, that it can be done more quickly, that it makes a neater flap, and permits more accurate apposition of the edges.

The objections to the operation as usually practised are, that it cuts arteries, veins, tendons, and nerves obliquely; that it requires more sutures and more ligatures; and according to some surgeons it is more apt to slough.

I have no doubt myself that the argument which has always had the most weight, especially with a certain class of surgeons, is that it can be made more quickly. It gives a better opportunity for the display of a certain quality of surgical excellence, namely, rapidity of manipulation; and I believe that for this reason it will continue to maintain a reputation.

I shall not attempt to discuss the value of these two modes in their application to civil surgery. Indeed, if care is exercised in the making of the operations, I think it may properly enough be left to the civil surgeon to choose his method.

In their application to military surgery, however, I propose to state the results of recent experience.

In the Crimean war the circular amputations did better, as a general rule, than the flap. This fact was especially observed in those cases in which the patients were transferred from one point to another. Even in the case of the men taken by transports from Balaklava to Scutari, the circular amputations did the best. The great weight of the flaps in the case of the flap operations caused them to fall away and tear open; so that

gangrene and suppuration were much the most common in these cases. During the late war in this country, I have observed repeatedly after battles that a larger proportion of stumps were attacked by hospital or traumatic gangrene where fleshy flaps had been employed than where circular amputations had been made. This has been my own experience, but when I interrogate the surgeons of the army I find a difference on this point; some say their experience has been the opposite of my own, but the majority agree with me. I observed present at the Bellevue Hospital clinic one day Dr. Bliss. I had never conversed with him on the subject, but knew that he had been in charge of one of the first hospitals established in Washington, and one chiefly occupied by those patients whose condition precluded further transportation, this hospital being near the landing. And it is true, as perhaps you know, that Dr. Bliss received a very large proportion of the most serious cases. I said to him, "Dr. Bliss, please give us your views as to which operation has shown the greatest proportion of recoveries." To which he replied promptly: "I would say most decidedly, Doctor, the circular. This I have observed both in my own and in those field amputations which had endured transportation to the hospital. Entering the war with a strong prejudice in favor of the flap amputation, it is only the most unequivocal experience that has led me to give a general preference to the circular."

I do not know what testimony could be more pertinent. I might mention quite a number of field surgeons who entertain similar opinions; such as Drs. Thomas of the One Hundred and Fifteenth Pennsylvania, Field of the Sixty-sixth Indiana, Anderson, etc., etc.

Recently, a case was presented at Bellevue Hospital, in which I had a rare opportunity to observe the relative value of the two modes in their application to civil surgery. It is very difficult to institute a comparison between two patients in the same hospital; it is still more difficult to institute a comparison between patients in different hospitals, and at different seasons of the year, because the general circumstances and surroundings will be found always to vary so greatly; but we had a man received into Bellevue Hospital who, a few hours before, had had both arms crushed by machinery to a point a little above the elbows. So far as I could judge, the muscles, bones, and vessels were injured in the same manner and to the same extent on both sides; there was no apparent difference. He was a temperate, healthy man, twenty-four years of age. I determined at once to make the two amputations by different methods; and I made the circular operation on one side and the flap at almost precisely the same point on the other side, making both with great care, the patient being under the influence of ether. I observed, first, in relation to the flap operation, that it required more than twice as many ligatures as the circular operation; next, it required twice as many sutures. I then proceeded to dress the two arms precisely alike with lint and bandages, and laid both in an easy position. At the end of three or four days suppuration was established in both arms; and from that time till the tenth or twelfth day (this case has been published, and you will be able to correct any errors in details) both arms were in a like condition, except this, that both the dresser and house surgeon informed me every morning that the flap had discharged at least twice as much pus as the circular amputation. Indeed, for myself, I thought it discharged four times as much. About this time, from infection in the hospital, osteomyelitis and pyæmia occurred, and the patient died on the twentieth day after the operation. An autopsy showed that, to a certain extent, union by first intention had taken place in both arms. There was apparently no great difference in this respect between the two stumps, except that, as the flap amputation had left a larger surface to heal, there was a somewhat larger surface ununited. On examining the bones attacked by osteo-myelitis, we observed that on the side where the circular amputation was made, the disease had made progress about half an inch, while on the other side the bone was dead to the extent of an inch. We then made a longitudinal section of each bone up to their epiphyses; and on the side of the circular amputation, we found the disease had pretty much ceased at the point of separation of the upper epiphysis from the diaphysis, while on the side of the flap amputation the disease had fairly invaded the epiphysis, the whole epiphyseal surface being involved. It was apparent, therefore, or at least probable, that the disease had attacked first the stump and bone of the arm on which the flap amputation had been made. Now here was an opportunity of making an exact comparison between two modes of amputation, each of which remained under the same hygienic circumstances. It is but a single case, but I confess that to my mind it carries the weight of a thousand of those cases in which the comparison is made between different persons. I consider the case a strong confirmation of the view I entertain that, in military practice at least, the circular amputation is in general to be preferred. Now, why make this distinction between military and civil practice? The objections to the flap operation in military over and above those which hold in civil practice are, first, that in case the patient is to be moved after the operation, the weight of the flap is an objection; and second, that soldiers are seldom so well fed as persons in civil life, indeed they are very often scorbutic, and in such patients especially the comparatively large wound made by the flap operation increases the danger of suppuration and of gangrene. In military surgery, where it is to be anticipated that large numbers of the wounded will be crowded together, it is a matter of the greatest importance that the amount of suppuration shall be lessened by every possible means.

These arguments will sometimes apply to cases in civil practice. If the patient is in full vigor, and is not to be placed in wards filled with suppurating wounds, and is not to be carried far after the operation, then, if the amputation is to be made in fleshy portions of the limb, I do not object to a flap amputation; but if the opposite conditions exist—if the patient is in the condition in which most of our soldiers have been, badly nourished and scorbutic, then I prefer, even in civil life, the circular amputation. A few words more as to the method of making these two forms of amputation: First. If you are about to make the flap amputation, gentlemen, remember that the first error of young surgeons in this operation is, usually, that they make the flaps too short. They can be made too long, but this is seldom done; and the reason is, they do not consider that after the amputation is made the muscles still remain attached to the skin, and that when they come to contract the flaps will be very much shorter than when the section was first made. If you make a flap amputation with the patient under the influence of an anæsthetic, you will notice that although the muscles do not retract immediately, yet they will do so at the end of twenty-four or thirty-six hours, and what seemed a long flap may now have become a very short one. I repeat that the first error young surgeons generally commit in flap amputations is in making the flaps too short. Second: I cannot advise you to adopt any of those methods in which one flap is made longer than the other, unless

there is in the particular case under consideration some special reason for it, as, for example, it may happen that it is proper to do so in order to save as much of the limb as possible; the integument being destroyed on one side, you may choose to make a long flap on the other. Various other surgical or anatomical reasons may determine you occasionally to make one flap larger than the other; but all things being equal, flaps do better which are of equal length, and for this reason—a very long flap is apt to slough; certainly in proportion to the length of the flap is its power of sustenance diminished; and you may make it so long as that it shall inevitably slough. Now, if you adopt, as a rule, Teale's method of amputation, making a very long flap on one side, and scarcely any on the other, you will find that of an equal number of cases a larger proportion will slough after this than after other operations. A surgeon who saw a large number of operations on Teale's plan, in an army hospital, tells me that nearly all did badly. Third: I would not advise you to make the flap operation, as it often is made, by a single oblique incision from the point of transfixion to the point of exit of the knife, which method secures all the disadvantages of the flap amputation, viz. oblique section of vessels, arteries, and tendons; but I would have the knife first penetrate entirely through the limb, then pass down along the axis of the bone a short distance, and finally I would have it brought out in a curve, so that when it escapes from the tegumentary tissue, its edge should be at right angles with the surface of the integument. Thus you will avoid leaving the skin with a margin so thin that it will inevitably slough, and you will avoid cutting so obliquely all the other tissues. Fourth: It is still most important of all to saw the bone close under the flesh. When surgeons make operations against time, they may make them in such a way that the by standers and the patient may never know what was the fatal defect in the operation; but I know very well that in many cases the patients have died simply because the surgeon has not taken time to expose the bone properly, and saw it off close to the flesh. Sometimes it is not easy to do this; and to perform this part of the operation well may in some cases require five minutes, and that would be accounted a loss of precious time by the surgeon who is operating for effect. Finally, having made the section of the bone carefully and at the proper point, the surgeon proceeds to tie the arteries. Tying arteries is, in general, an easy matter; but to tie them well requires some care and judgment. They may be tied so loosely as to insure secondary hæmorrhage; the ligature may include so much flesh as to endanger the same result by the speedy ulceration of these soft tissues; or it may be made to include a piece of a tendon, which by its tardy separation will keep the ligature hanging in the wound for many months; or a nerve or a vein may be included. When you have seized the artery fairly, wait a moment until you have made sure that you are about to secure nothing but the artery; it is better to lose a little blood than not to be sure of having separated the artery from the vein, nerve, or other tissues; then tell your assistant to apply the ligature snugly up to the flesh, and tie it tightly so as to make sure of cutting through the two internal coats, but not the external. See to the strength of your ligature, also, before you tie an artery. Well wound and well waxed, white harness-maker's silk is the kind of ligature which I prefer. But we cannot always determine its strength by its appearance, nor can we always by simply pulling upon it. You must tie it across something of about the size the artery will be when it is crushed, and drawing upon it you will frequently find that a ligature which did not yield to a strong and sudden jerk, will break readily when tested in this manner. Having tied all the main trunks, I advise you to wait until the oozing ceases. Suppose it was your brother, gentlemen, whose limb you are amputating, and that you wished to give him every possible chance of life. Then you know time would be of no consequence, nor would you make haste solely for effect. Having tied the main trunks, loosen the tourniquet and wait patiently for the oozing to cease: you may close the wound up snugly with bandages, and thus arrest the oozing; but it is your brother, and you wish to give him every possible chance; while you are waiting, probably the effect of the anæsthetic will pass off and the wound will begin to bleed again. These are the reasons why I wish you to wait. Vessels of considerable size may bleed when reaction ensues, and the same vessels will continue for some time to ooze blood, and a coagulum will be formed between the opposing surfaces, and prevent to some degree their adhesion. When we used to talk more about union by first intention, we advised to keep the wound open until it became glazed. In my opinion this is good practice to-day. All hæmorrhage may not cease under an hour or two hours; but that constitutes no sound objection. Leave it open, we say, until the surface is a little glazed; now fibrin or lymph has been poured out, and the two surfaces, when applied, become at once glued together as if wax had been placed between them, and the chances of union by first intention are greatly increased. Now bring the edges of the wound well together with sutures or adhesive plaster and roller; apply the roller moderately tight unless the patient is feeble, in which case there is a good deal of danger that the tight bandage may strangulate the feeble circulation; but it ought always to be applied so tight as to keep the parts in apposition without strangulating the tissue, thus securing to all the parts the same amount of support to which they were accustomed. What was that? They were accustomed to the support of the skin, and of the fascia which underlies the skin; a certain amount of support is natural to these tissues, and therefore cannot prove injurious. Dr. Lidell, in a communication to the *American Medical Journal*, has very properly called attention to the danger of tying up stumps too tightly. I was sorry, however, that he did not speak also of the danger of not closing them tightly enough.

With regard to the circular amputations, I have only these one or two special remarks to make. They must be made with care; yet I do not think they require so much care as the flap amputations. I believe a surgeon of ordinary skill is more likely to make a circular amputation well than a flap amputation. Be certain that your flaps are long enough. It is easier to shorten them if they are found to be too long than to lengthen them when they are too short. It is my practice, in making the circular amputation upon the lower extremities, after having carried my knife around the limb down to the fascia, to make a vertical incision down to the fascia posteriorly, in the direction of the axis of the limb, and of the length of the intended flap. My object in doing this is twofold: first, it enables me to roll up the integument with more ease; second, when I have closed the parts from side to side, there is left posteriorly a depending wound for the escape of blood and pus.

The New York Orthopœdic Dispensary has at length been opened, at 1299 Broadway, near Thirty-fifth street. Some of our prominent citizens have taken an active interest in the charity, and have already placed it upon a proper financial basis. The Resident Surgeons are Drs. Chas. F. Taylor and W. E. Vermilye; the Consulting Surgeons are Drs. Metcalfe, Parker, Agnew, Markoe, and Van Buren.

Reports of Hospitals.

JEFFERSON MEDICAL COLLEGE.

CLINIC OF PROF. GROSS.

October 13, 1866.

Multiple Chancre.—R. W——n, æt. twenty-four; has a sore on the prepuce of the left side, on a line with the junction of the head of the penis; also a very similar sore upon the right side; one between this one and the frenum, and one upon the frenum. The two larger and first-mentioned sores are almost symmetrical in situation, size, and shape. They are excavated with foul bottoms of a greyish appearance, and having a yellowish discharge. There are no healthy granulations. The sores are technically denominated *chancres*. The edges of these ulcers are rather hard. The other four are quite small, all somewhat excavated, and with the foul, unhealthy-looking bottom. Their surface is incrusted with aplastic matter, devitalized, or so feeble in vitality as to be incapable of being converted into granulations. There is no swelling of the inguinal glands. It is a little over two weeks since these sores first made their appearance; the connexion which gave rise to them occurred twenty days ago. These sores are the result of a specific inoculation caused by impure intercourse. The inoculation may take place directly, as when there is a fissure or abrasion upon the head of the penis, or upon the prepuce, or upon both. At other times the matter is inserted into the orifice of one of the mucous follicles of the part, the virus lodging and producing ulcerative action. Sometimes, very frequently perhaps, inoculation takes place by mere contact of the mucous surface apart from the follicles which exist here in great numbers. We have that kind of inflammation produced by a specific poison unlike any other inflammation of which we have any knowledge. This poison is not capable of producing gonorrhœa any more than gonorrhœa is capable of producing the syphilitic poison. The two poisons are entirely distinct in character, in mode of origin, in manner of progression, in products, and in modes of termination.

There are two sores of this kind liable to occur on the genital organs, and upon the contiguous surfaces, as the scrotum, perineum, anus, vagina, etc. One is called *hard chancre*, and the other *soft chancre*. The hard chancre is occasionally known as the Hunterian chancre, from having been first accurately described by Mr. John Hunter, the man who first established surgery on scientific philosophical principles. It is called hard chancre because when grasped between the thumb and finger we find that it is hard, with a hard base feeling like a mass of fibro-cartilage, an elastic sensation being imparted to the finger. This induration is owing to a deposit of plastic matter, poured out in considerable quantity and retained; not disseminated or diffused, but circumscribed, and thus causing the hardness present in this variety of chancre. It has usually an excavated appearance, as if the parts had been punched out. The edges are abrupt, slightly everted, and when minutely examined frequently found to be somewhat serrated and ragged; and the surfaces of the edges and the bottom are encrusted with plastic lymph, which is either devitalized at the moment of deposition, or becomes so very soon afterwards, and is incapable of forming healthy granulations. This form of chancre is usually solitary, now and then multiple; but this is exceedingly uncommon. It is not so frequently apt to give rise to bubo as the soft chancre; generally gives rise to secondary syphilis, and often to tertiary symptoms. The poison is carried by the lymphatics into the glands of the groin, and thence into the system which it infects, giving rise to the group of phenomena known as secondary syphilis: as the various rashes, pustules, etc., dependent upon this virus; falling of the hair of the scalp, eyebrows, and other parts of the body; iritis, inflammation of the iris or curtain of the eye; inflammation and ulceration of the fauces, arches of the palate, tonsils, of the uvula; of the tongue in the form of mucous tubercles, little spots looking as if nitrate of silver or chalk had been rubbed upon the part; and these mucous tubercles may also occur on the lips, the arms, the vulva of the female, etc. At a later period, varying from six to eighteen months, there frequently occurs what is called tertiary syphilis, the third stage of this affection; and now this poison manifests itself in various parts of the body. All parts of the body, without exception, are liable to be invaded by it; more frequently manifesting itself in the form of inflammation and ulceration of the throat, of the nose; of the bones of the skeleton at large, especially of the bones of the cranium, the ulna, the clavicle, the tibia, the spongy bones of the nose; the proper bones of the nose, and the palate bones. The periosteum and the fibrous membranes are apt to suffer under such circumstances. The skin comes in for a full share of participation, manifested in the form of eruptions terminating in vesicles, pustules, tubercles, and papillæ; terminating in intractable ulcerations of enormous size, even to the size of the palm of the hand; ulcers sometimes as large as a breakfast or dinner plate. The lungs, the brain, the liver, the kidneys, all the organs of the body are liable to be affected in this way. It is a systemic poison, with the power of multiplying itself and invading every atom and cell in the composition of the human form; curable in its primary form; perhaps curable in its secondary form; curable, it may be, in mild early cases, in its tertiary stage: but as to this we have doubt. Not unfrequently it is utterly incurable; we may scotch it, but we cannot eradicate it from the system. This is not the worst: it not only contaminates the individual, the original subject of the disease, but if he marries and is not very careful, he will transmit the poison to the partner of his bosom and to his offspring.

The present case is a multiple chancre; a soft chancre, which is frequently multiple and having the power of multiplying. Dr. Gross has often seen as many as twenty in a single case, and only lately attended a female patient who had forty of these sores on the vulva and on the perinæum, contracted from her filthy husband. The surface could not have appeared more completely riddled. It is a characteristic of this multiple chancre that it has the power of spreading or of reproducing itself on surfaces with which the matter comes in contact. It is more inoculable than the hard chancre, and gives rise to bubo more frequently; but it is not so liable, notwithstanding, to contaminate the system; and indeed if we are to believe many of the syphilographers of the present day, especially of the French school, we are to conclude that it has not the power of contaminating the system at all under any circumstances, and that this is an inert poison, and therefore it is called chancroid, chancre-like—not a real, not a genuine, not a Hunterian chancre, but chancre-like. Dr. Gross does not subscribe to these views, because his experience teaches him differently. He has seen cases of soft chancre which, beyond all question, contaminated the system, giving rise to secondary syphilis; and he has seen some of the worst cases of secondary and tertiary arising from chancre so slight, small, and insignificant, as to have escaped entirely the attention of the patient and that of his medical attendant, lasting perhaps only six,

eight, or ten days; then disappearing, the part healing, and the man's system becoming afterwards terribly contaminated, as manifested by the secondary and tertiary symptoms. He therefore does not subscribe to these opinions, but is solemnly convinced that they are both capable of contaminating the system, but the hard variety more frequently.

This man has no bubo. He need never have a bubo, and yet his system may be contaminated. They usually occur in from four to six weeks from the primary affection. It does not follow that, because there is no bubo, there will be no systemic contamination. There may be bubo in the present instance; and if so, it is likely to be on both sides, because there is chancre on both sides. We should endeavor, if possible, to protect this man's system from the inroads of this poison, endeavor to cure these chancres as speedily as possible, that the poison may not reach the system, and thus give rise to contamination. The patient is in good health, sleeps well, has a good appetite, and his bowels are in good order. He has no erections at night. Chordee is liable to arise during the progress of chancre, and frequently constitutes a troublesome complication, which is to be subdued at all hazards, being painful, and interfering with the reparative process. For this purpose we administer anodynes by the mouth, or by the rectum in the form of enema, or that of suppository. We wrap a cloth around the penis, wet with a solution of opium and acetate of lead, which keeps the parts cool and quiets them.

Every ulcer is a form of inflammation with a breach of continuity, with structural lesion of the part, or removal of a portion of tissue. This is an ulcer, a form of inflammation, where we have also a specific inflammation furnishing a particular poison, inoculable, producing the same disease under favorable circumstances. The object of the treatment is to convert these specific ulcers into healthy ulcers by the removal of a certain amount of inflammatory action, so that when the lymph is poured out it shall be able to produce healthy granulations. For this purpose we must make use of local and constitutional remedies. In as robust a patient as the one before us we purge him. We will give him ten grains of calomel, five grains of compound extract of colocynth, and one grain of ipecacuanha, in three pills, at bedtime. The colocynth will render the mercurial a little more potent, and the ipecacuanha will relax the system a little. If three evacuations are not produced by to-morrow morning, we will give an aperient of Rochelle salts, citrate of magnesia, or some similar article. We will also give him a saline and antimonial mixture: half a drachm of sulphate of magnesia, one-eighth of a grain of tartar-emetic, and about five drops of the tincture of veratrum viride, in solution in the form of a mixture, at least four times in the twenty-four hours. The object will be to keep the bowels in a soluble condition and depress the powers of the heart, to act as an antiphlogistic. This is therefore an anti-inflammatory prescription. It is a nauseant, acts on the secretions, reducing the vascular excitement, to control the inflammation going on in this man's genital organs. The veratrum viride is a powerful depressant, controlling the action of the heart so that it shall not throw the blood with great force into the inflamed structure.

The patient should eat no meat, should live on the lighter vegetables, on stale bread, milk and tea, no coffee, no lager, nothing stimulating at all. The treatment must be vigorously antiphlogistic. He should not be permitted to walk about, or observe the semi-erect, and much less the erect posture, because the affected part should be kept at rest as well as the system at large. If the patient walks, he excites the circulation, rubs the penis against his pantaloons, and is apt to have the organ in a pendent position, while it should be kept elevated.

As to the local treatment, let him provide himself with a tin cup, fill it with lukewarm water, add an even tea-spoonful of common salt, and hang the penis in it for fifteen or twenty minutes at a time, and repeating the immersion three times in the twenty-four hours. This will bathe the parts, and remove the secretions, inducing cleanliness; it will act as a stimulant as well as a detergent, cleanses the parts, stimulates them, and awakes them to a new action.

We will cauterize these parts with the solid stick nitrate of silver, using the antiphlogistic touch, the slightest possible contact, not depositing much of the nitrate of silver, for this gives pain and provokes undue action. The object is to produce an antiphlogistic effect. We will wrap the penis in a strong solution of sugar of lead and opium, applied upon patent lint, and over the patent lint putting a piece of oiled silk, to protect the parts and restrain evaporation of the medicated solution. We will take half an ounce of sugar of lead, half a drachm of powdered opium, to the quart of boiling water, pouring the hot water on the opium to dissolve it. The foreskin must be drawn back in order to make the proper applications. The lead will act as an astringent, promoting contraction of the enlarged capillary vessels; the opium will soothe the parts, allay pain if there is any, and add to the efficacy of the prescription. In twenty-four or forty-eight hours it may become necessary to touch the parts again with the nitrate of silver very lightly, perhaps once every twenty-four or forty-eight hours for some days; not too often, otherwise the remedy will become a source of irritation. As soon as granulations show themselves, we shall employ an ointment of nitrate of mercury with simple cerate.

If this patient were anæmic, feeble, with coldness of extremities, etc., he would be put upon tonics, remedies of an opposite character to those employed, and these facts must be borne in mind.

Two classes of patients will always be found presenting themselves: one bearing depletion, the other requiring the opposite mode of treatment.

Progress of Medical Science.

Premature Menstruation.—Dr. T. C. Allbutt reports (*Lancet*) a rather singular case of premature menstruation. The patient was seen in the summer of 1865, and was reported to have menstruated within the last few days. Her age was one year and six months. The child was then suffering from emaciation, weakness, quick pulse, and other symptoms of hectic fever. These symptoms passed off in a few days, and the child partially recovered her health. On examination the anal and genital organs were found free from discharge and quite healthy in appearance. On the following month the discharge again appeared, and after it had passed away the reporter found the child as before, in a state of hectic, and still presenting a perfectly healthy appearance about the anus and pudenda. He was unfortunately unable, being absent from home for a while, to see the child during a continuance of the flow. In about a fortnight, the child had again recovered some degree of health. On many occasions the doctor carefully examined the child for disease in other organs, and did not find anything of importance. At the third monthly period he actually saw the child menstruating. The discharge appeared with curious accuracy at the month, and lasted

about two days and a half. The discharge was sanguineous, and in every way resembled that of a girl at puberty, but was more scanty in quantity. A return of the hectic fever followed, and the child's life was endangered. She recovered, but only to be again prostrated by a fourth appearance; and after a fifth she died, wasted and exhausted, without any effort to rally. There were no other signs of premature puberty. A post-mortem examination could not be obtained. "Among many cases of premature menstruation," says the reporter, "there are two in which the menses appeared at nine months, and one in which the discharge appeared at two years. The two first cases are reported in the 'Transactions of the Royal Medico-Chirurgical Society,' Vol. II., p. 116, and in the *Lancet* for Nov. 1828, from Michel's archives. The former cases were seen by Dr. Martin Wall. The third case is reported by Mr. Embling in the *Lancet*, 1848, p. 137. In these three cases obvious signs of puberty were seen in the genital organs, mammæ, and elsewhere, and these signs form a great part of the interest of the cases. In other cases of premature menstruation, exhaustion and death have occurred as in this."

Collodion as a Surgical Dressing.—Dr. John P. Maynard (*Boston Medical and Surgical Journal*) recommends the use of collodion for the treatment of incised wounds, and claims for it advantages over every other kind of surgical dressing. He simply applies it to the edges of the wound after they have been brought in apposition. He also speaks highly of it as an application to burns, nævi, and maintains that by coating the faces of small-pox patients with it the pitting is prevented. In erysipelas it allays the burning sensation, and in the treatment of fractures an excellent splint can be made by coating the bandages with the substance. The following is his formula for its preparation: "Take two parts of sulphuric acid, sp. gr. 1·850, and one part of nitric acid, sp. gr. 1·450; mix them. Allow the temperature to fall to about 100° Fahr. Add to this raw cotton to the point of saturation. Let it soak about one to two hours. Pour off the acids. Wash the cotton till litmus paper shows all acidity removed. Dry thoroughly. The cotton will now be found converted into a gum, completely soluble in ether of about ·750 sp. gr., or in pure ether three parts and alcohol ninety-five per cent. one part. About two ounces of cotton thus prepared will make about one pint of collodion of proper consistency for surgical purposes."

Strong Injections for Otorrhœa.—Dr. W. H. White, an editor of the *Medical and Surgical Monthly*, of Memphis, thinks the treatment of this disagreeable affection, as recommended by authors on surgery has been chiefly only palliative, because the local means used were too weak. He relies mainly upon nitrate of silver, varying in strength from 5 to 20 grains to the ounce of water, and occasionally the tincture of myrrh and quassia in equal quantities. Washing out the affected ear with castile soap and water, he applies the above agents in injections or with a camel-hair pencil for ten or twelve days every second day, then two or three times a week, gradually increasing their strength, until the discharge ceases. His patients have all been young, from five to twelve years of age, none complained of the strongest solution, and were all cured (thirteen cases) in less than two months.—*Nashville Journal of Medicine and Surgery.*

Chloroform in Convulsions in Children.—Spasms in children, especially if dependent upon accumulation of indigestible food, can often be satisfactorily and quickly mitigated by the anæsthetic effect of chloroform —repeated if returning consciousness brings with it a return of the spasms. The treatment of several cases in this manner gives confirmation of its comparative safety and pleasing results. When emesis cannot be readily accomplished by full doses of emetics, assisted by warm water and other adjuvants, it will often freely follow returning consciousness, thereby, besides its quieting and restorative nature, removing the original and continuous cause.—*Nashville Journal of Medicine and Surgery.*

Existence of the Fœtus after the Death of the Mother.—Professor Breslau comes to the following conclusions, after experimenting upon rabbits and guinea-pigs: First: There can be no doubt that the human fœtus, exactly as the animal one, always survives the mother, when the kind of death was sudden and violent, e. g. by hæmorrhage, suffocation, a blow upon the head, apoplexy, etc. Second: It is to be accepted in view of the fact, shown by daily experience, of the greater power of resistance of the human fœtus, as compared with that of the smaller mammalia; that the human fœtus survives the death of its mother longer than the animal fœtus. Third: The duty of every physician is, then, after the death of the mother, to make the cæsarian section as quickly as possible. This need not be done, however, when the fœtus was certainly dead before the death of the mother, or when it is evident that delivery can be more safely and quickly accomplished through the natural passages. Fourth: The cæsarian section, if not undertaken within the first quarter of an hour to twenty minutes from the death of the mother, gives no hope of a living or only seemingly dead child. Fifth: If the mother has been attacked with a blood disease during pregnancy, such as cholera, typhus, or puerperal fever, or at parturition with scarlet fever, measles, there is no hope of the maintenance of the life of the child, since the requirements for its existence were not cut off at once, but were gradually destroyed. The same thing will be the case in those cases of poisoning of the mother which have as a result a very rapid decomposition of the blood and communication of this to the fœtus. Death from chloroform (inhalation) seems to form an exception; since chloroform, as such, does not appear to pass over into the infantile circulation, of which we may convince ourselves in every case of parturition completed under chloroform.—*Medizinische Jahrbücher*, xii. Band, 3 Heft, from *Monatsschrift für Geburtskunde.*

Apparent Death of the Newly Born.—In the asphyxia of the newly born child, Professor Olshausen rejects entirely the practice of blowing in air from mouth to mouth, but advocates Huter's plan of catheterization of the larynx and trachea. He carries on the inspiration by means of a catheter of one and three-fourth lines in diameter. The child is so placed that the neck is quite convex anteriorly. Under the guidance of the left index finger, which feels exactly the arytenoid cartilages and the openings between them, the point of the catheter is inserted between the false vocal cords, and pushed forward from one and a half to two inches through the glottis. The first inspirations sometimes demand quite an effort. If the inspiration has any result, the thorax is perceptibly elevated during it. If, however, the desired result be not attained in this way, if the thorax do not expand on both sides, and not sufficiently, the catheter is pushed on one to two inches further over the line of division of the trachea, in order to inflate each lung for itself. We can, as we wish, direct the catheter into the right and left bronchus, according as the upper extremity of the instrument is directed towards the left or right angle of the mouth. If much mucus is collected

in the air-passages, which also stops up the eyes of the catheter, and thus prevents the entrance of the air, this mucus must be first removed by blowing. After one successful expansion of both lungs, the inspiration is made regularly about eight times in the minute. For the purpose of assisting the expiration, the diaphragm is pressed upwards, and the thorax is pressed inwards with both hands. This artificial respiration should be continued until either a regular breathing, with about four spontaneous inspirations in the minute, shows itself, or the already normal contractions of the heart become again constant, and are observably less frequent, which often occupies from one to two hours. Other means of irritation which have been a long time practised, such as sprinkling with cold water, vigorously shaking the body of the child, blows upon the nates, the employment of a warm bath, tickling the hands and feet, are also appropriately employed either before or at the time of the artificial respiration. Seven cases of complete success, three of transitory effect, are reported.—*Medizinische Jahrbücher*, xii. *Band*, 3 *Heft*, from *Deutsche Klinik*.

Causes of Hyperæmia of the Kidney, by Prof. Oppolzer, Vienna.—This disease may be divided into two great classes. I. The so-called active hyperæmia, *i.e.* overfilling of the organ with blood by fluxion excited towards it. II. Hyperæmia following as a consequence of stagnation of the blood, causes of fluxionary hyperæmia. 1. Excess in drinks taken into the system. 2. Abnormally increased action of the heart. 3. Disturbances of circulation in the capillaries of the skin, as occurs, for example, in the chill of intermittents. 4. Compression of the abdominal aorta, *e.g.* in pregnancy by the uterus. 5. Fluxionary hyperæmia occurs in the vicinity of inflammatory collections and neoplasmata. 6. The use of irritating substances, copaiba, cantharides. All these causes lead necessarily to overfilling of the renal arteries. The causes which lead to the overloading of the kidneys with blood, on account of a hindrance of the venous circulation, are: 1. The renal vein is either pressed upon from without or its calibre is plugged by a thrombus, *e.g.* carcinomata or other tumors pressing on the renal vein. 2. In the different diseases of the uterus, in which thrombosis in its veins occurs, which reach to the vena cava, and from thence to the renal vein. 3. Thrombi existing in the small veins of the parenchyma of the kidney (this may be the case in Bright's disease), may enlarge, pass from the branches to the main trunk, and encroach upon its calibre. 4. In severe diseases the heart may not be able to keep up the circulation with the requisite energy; the veins are mostly filled with blood, which coagulates in individual parts of the body, causing the marantish (?) Thrombosis described by Virchow, as in children suffering from chronic diarrhœa and atrophy. 5. In the greater number of cases, we find the hindrance to the venous circulation in the kidneys in diseases of the organs of respiration and circulation, insufficiency of the valves of the heart, impairment of the lung capillaries, in great compression of the thorax, etc.—*Wiener Medizinische Presse.*

Notes on Diseases of the Spleen, from the clinic of Prof. Piorry (*Allg. Wien. Med. Zeit.*, 1865, Nov. 24, 25.)—Diseases of the spleen are characterized by periodically occurring attacks, which almost always return at a certain hour, and are composed of the stages of chill, fever, and sweating; although one or two of these stages may be less evident or entirely absent. These three symptoms may be considered characteristic of spleen disease. In those attacks called intermittent fever, which occur daily or every third day, it is an error not to examine the changes in the spleen, and to regard the fever as an independent disease, while it is only a symptom. At present it is universally recognised that an intermittent fever may exist, even if the stages of the attack offer great varieties, or if some of them are absent. The sweating-stage is most rarely wanting; and where we see this symptom recurring at a regular hour, we may be sure there is disease of the spleen. Simple splenitis, resulting from marsh miasm, is, to some extent, an acute disease; the attacks are clearly characterized, and mostly of the tertian type. In splenitis caused by injury, the fever returns daily, especially at evening; it may come several times during the day, and pain in the region of the spleen accompanies it. Chronic diseases of the spleen are accompanied by swelling of that organ, and the attacks of fever retain the quotidian or quartan type; often, however, they show themselves only by sweating, which usually occurs at night. In chronic cases of spleen disease, we often can find no feverish excitement. Hence Piorry recommends that in all cases of disease, the spleen be carefully examined, as its condition may be useful in explaining the condition and pointing out the treatment.

Experiments on the Generation of Leucocytes, by Dr. E. Onimus.—In a fresh piece of peritoneum some filtered serum of blood was inclosed. This bag was placed under the skin of a rabbit, and after eight hours that liquid, in which no leucocytes could be found previously, contained them in great quantity. Again, the serosity of a blister was filtered and shut up in three condoms, then inserted under the skin and buried among the muscles of a rabbit. Bag No. 1, taken out after twelve hours, was still found transparent, but contained granulations (?) and some leucocytes. Bag No. 2, taken out after twenty-four hours, showed in the opalescent and fermented serum a great number of well formed leucocytes. Bag No. 3, taken out after thirty-six hours, exhibited a considerable number of leucocytes and granulations in a lactiform serosity.—*France Médicale, No.* 58.

Treatment of Anthrax.—Dr. Larghi, of Vercelli, describes (*Annali Univ. di Med.*) a form of treatment which during the last twenty years he has pursued with great success in the treatment of anthrax. He makes a free incision, so as to reach the sound parts at the margin of the tumor, as well as through the depth of its substance, and then proceeds to freely apply the solid nitrate of silver. Every portion of the incised parts, as well as any spontaneous opening that may have taken place, is thus cauterized. The edges of the wound are also carefully cauterized. The tumefaction and pain of the anthrax rapidly subside, and the separation of the eschar is allowed to take place. Neither erysipelas nor purulent absorption ensues, the fever ceases, and the patient rapidly recovers.—*Dublin Medical Press and Circular.*

The Johannetter Knights of Moravia—A benevolent order, with functions nearly identical with the Sanitary Commissions of our own late war, are now actively engaged in their hospital duties. They have a distributing centre at the railroad depot in Brunn, Moravia, and have made it the only very busy shop in town. In spite of their generous and assiduous devotion to the sick, it is stated that the Johannetter nurses are very seldom infected with the cholera.

Ward's Island Buildings.—At a late meeting of the Commissioners of Emigration, specifications for the alterations to be made in the buildings at Ward's Island were submitted, and referred to the Committee on Buildings.

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OUR RELATIONS TO EACH OTHER.

THE medical profession has long ago earned for itself the unenviable reputation of being a quarrelsome one. If the disposition to dispute were confined to those outsiders who choose to interfere with the cause of science and humanity, we should have no reason as a learned profession to be ashamed of its possession. No right-minded individual would, under the circumstances, be backward in applauding our course. But most unfortunately for us, we show too much inclination to spend our wrath upon each other, and this, too, in the face of our claim for dignity, learning, and good sense. There is no necessity for proving that the opinion of the people concerning our conduct to each other is well founded, as every member of the faculty is ready to admit it. But while we make this humiliating acknowledgment, it has never, perhaps, occurred to many of us to give a reason for these contentions. If we were to examine into all the circumstances which have heretofore given rise to professional encounters, and which we regret to say are stil lgiving rise to them, we should find that they refer simply to a mistaken idea of our professional relations to each other. We are convinced that, if our associations were understood as they should be, the wranglings from petty misunderstanding, the disgraceful differences, and the angry contentions would be entirely unknown. We are forced to state this as our conviction, because we have not only assured ourselves that there is a deplorable want of perception of our duties to each other, but that in all the quarrels which have come to our knowledge this lack of appreciation of mutual rights has been apparent.

There can be no difficulty in settling the question as to what these duties to each other are, as we have a recognised Code of Ethics. We as a profession have concluded that a proper definition of our professional rights should be made, and we have fulfilled our aim. The importance of having some concerted rule of action for the government of every large body is considered by the ablest political philosophers to be essential to its integrity and perpetuity. In no respect is this more true than in Medicine. It has been sneeringly said that our Code of Ethics was a reflection upon our character; that men of honor should need no rules to govern their actions; that its very existence was a reflection on our probity.

This would be true if the code referred only to such matters as are generally considered by laymen as "points of honor." This, however, is not the fact, as the major part of it is made up of matters which relate to reciprocal duties which are strictly professional, and which have for their object a standard of agreement upon questions which might otherwise be open and give rise to confusion. We have ample evidence that this was the design of the original framers of the code; and we may congratulate ourselves, in view of its comprehensiveness, liberality, and competency to meet all emergencies, that such intention has been so successfully carried out. No one can make to it any material addition, neither can any one take from it without injury. It is true that "points of honor" are here and there alluded to, but as there are unfortunately some in our ranks who occasionally have to be reminded of them we cannot in reason urge their omission.

Allowing that we have a model code—one that is capable of meeting all the requirements of justice, of dealing impartially alike with the gravest and most trivial case—what does it profit us if we heed not its precepts? A deplorable ignorance of the laws which should govern us is sufficiently manifest to give rise to concern among those who delight in the preservation of professional harmony. The Code of Ethics is not studied as it should be, or we should have fewer questions asked as to whether this or that action on the part of another was proper or not. We have, in fact, witnessed enough examples of this sort to warrant us in saying that there are medical men in this country, professing to be "respectable" and "regular," who, if they have seen the Code at all, have never read it through. This class is by no means small, and it is to its members principally that we owe most, if not all, the quarrelling for which the profession, as a whole, are so much blamed. The peaceable individuals should lose no effort to christianize the more belligerent by constantly reminding them of their duties to themselves and to the profession, and at the same time urging upon them the expediency of becoming familiar with the golden rules which should govern our professional fellowship. We do not think it would do any of us harm to read the Code through carefully once a year; indeed we are confident that our differences would be less if some performed that service every six months, while others of conveniently short memories might carry about with them a pocket-edition for consultation in emergency.

THE present time seems a fitting one to urge upon our medical students the propriety of systematic note-taking while they are in attendance upon lectures. To be a good note-taker does not necessitate a knowledge of short-hand, much less is this true of such as are not

thoroughly versed in such writing. If any one is fortunate enough to be an expert in phonography, he has a decided advantage over others, but to possess such an advantage there must be no doubt of his proficiency. One who is not a thoroughly practical short-hand writer is a poor note-taker; for, in the effort to follow a speaker, when he is unable to write fast enough, he not only confines his attention to the mere relations of the words as they follow each other, but at the end he does not recollect anything that has been said, and cannot oftentimes read what he has written. Any one who wishes to be a good phonographer must either be a verbatim reporter, or else he had better not attempt to write short-hand at all. We would not, consequently, advise medical students to study short-hand for any advantage it may give them in taking notes, inasmuch as medical lectures are generally too valuable to be thrown away in the mere practice for speed in writing. Even if a student be a capital reporter, it is not necessary for his purposes to report the lectures word for word. He does not attend upon the lecturer to be charmed with metaphors and other rhetorical flourishes, and it is not necessary that "the pen of a ready writer" should always be in his fingers to jot down these effusions. And again, even if every word, as it fell from the lips of the speaker, were worthy of preservation, it would be absolutely impossible to report such lectures *verbatim* day after day, for months together, not taking into account the quadrupled labor of transcribing them. Such work would be as exhausting as it would be unprofitable. What the students want are ideas and not words, and these they can get without bringing into requisition any knowledge of "pot-hooks and trammels."

The importance of systematic note-taking after this plan cannot be over-estimated. It cultivates in the student the habit of strict attention to the teacher, and by such attention the important facts which are prominently brought forth by the lecturer are more indelibly impressed upon his mind than would otherwise be the case. Very many students believe that they can profit sufficiently by the teachings of the lecture-room, and impress the points made by the teacher upon their minds, by following the lecturer with their text-books. This would be all very well as far as it goes, but students cannot and do not read as they should; and even if they did, they would be pretty sure to lose many original ideas, which, not being noted at the time, would be forgotten. The teacher draws from his library and his own personal experience the facts which he exhibits in the lecture-room, and takes care to present to his hearers only such views as his experience and learning have taught him to be tenable. His teachings should be valued accordingly, and the student should make sure to profit by them by preserving them in some permanent form for reference.

If, after all, there may be nothing new in what is said, the listener has at least the satisfaction in being assured of that fact, rather than by coaxing himself into the delusive hope of "making it all up afterwards by study." We would strongly advise all students to take notes faithfully, and we can assure them that they never will regret it, and that a reference to their note-books, when far away from their teachers, will, in the gratification it affords, amply repay them for the little extra labor they now give themselves.

Reviews.

Transactions of the Medical Society of the State of New York, for the year 1865. Albany: C. Wendell 1865. Pp. 375.

The untimely and much regretted death of Dr. Willard, the zealous Secretary of the State Society, has delayed the publication, and the pressure of other duties our own review, of this welcome annual. The papers selected by the Publication Committee, choice and suggestive in character, are as follows:

"The Importance of Examining the Condition of the Dioptric Media in some Affections of the Eye. By C. A. Robertson, M.D., Albany, N. Y."

"The Uses and Abuses of Tenotomy in Cases of Muscular Atrophy, with the True Indications for its Employment. By Charles Fayette Taylor, M.D., of New York."

"The Census of New York, to be taken during the present year, considered in its Medical Relations. By Franklin B. Hough, M.D., Superintendent of the Census."

"Extracts from Letters received from Henry S. West, M.D., Physician to the American Board for Foreign Missions at Sivas, Syria." The writer finds abundant employment in operating for stone and strangulated hernia, as well as in the treatment of typhus and relapsing fevers. He has seen the malignant type of scarlatina almost uniformly succeeded by albuminuria, owing to the exposures and poverty of the people. Variola has more or less prevailed, but vaccination, he informs us, was introduced only ten years ago in this region of Asia Minor. The medical profession appears not yet to have attained a very proud position, although, thanks to a better system of education just being inaugurated, the people are beginning to enjoy the improved results of better treatment, and the Porte himself has issued an order forbidding all physicians without a regular diploma to practise.

"Observations on Cerebro-Spinal Meningitis, or Spotted Fever, as it prevailed at Carbondale, Pa., in the Winter and Spring of 1864. By Chas. Burr, M.D., of Carbondale, Pa." The author has derived unequivocal benefit from very free and active counter-irritation about the head, neck, and shoulders, and, if need be, along the spine. The rest of the treatment is expectant.

"On the Modus Operandi of Quinine. By H. N. Eastman, M.D., of Geneva Med. Col., N. Y." The view is maintained that this agent is actually an arterial sedative, or an antiphlogistic, acting primarily on the ganglionic nerve centres. It excites febrile action merely as a local irritant to the coats of the stomach, in consequence of non-absorption.

"Ligature of the Subclavian Artery. By Dr. Armsby."

"Suggestions relative to the Pathology of Pneumonia. By S. O. Vanderpoel, M.D., Albany, N. Y." Pneumonia is held to be a blood disease, marked by an augmentation of the fibrin as in acute rheumatism, awakened into life by exposure and dietetic error, or

by reaching a point at which the functions of the blood are seriously interfered with. The eliminating process resembles that of gout.

"Facts in relation to Placenta Prævia, etc. By Isaac E. Taylor, M.D., Prof. of Obstetrics, etc.," has been republished in pamphlet form.

"Unofficinal Iodides. By Wm. Manlius Smith, M.D., Onondaga Co., N. Y." These are *Iodide of Cinchonine* and the *Iodide of Cadmium*. The latter is extolled as an excellent topical application in bronchocele, the formula recommended being sixty grains to glycerine, f. ℥ j.

"Remarks on Vaccination: the Possibility of Communicating Syphilis and other Diseases through the Vaccine Virus, etc., etc. By Cyrus Ramsay, M.D., LL.B., etc., etc., Registrar of Records and Statistics of the City of New York." This, considering the variety of important topics treated, is a concise, exhaustive article, in which the opinions of leading authorities are quoted, and much valuable information presented in an entertaining style.

"Small-Pox in New York City, with some Statistics and Remarks on Vaccination. By Wm. H. Richardson, M.D., of Westport, N. Y. Being a Report of the Committee on Public Health of the N. Y. Legislature, submitted Feb. 10, 1865." In this nothing very novel to the profession has been advanced.

"On the Mutually Antidotal Properties of Opium and Belladonna, with Cases. By Henry S. Downs, M.D., New York." Eleven cases occurring in his own and the practice of others are cited, and the propositions of the writer clearly proven.

"The New Mode of Remedial Inhalation: Abstract of a paper by Louis Elsberg, M.D., of New York City," is an interesting paper, detailing the principles in the construction, and the history of the inventions for nebulizing fluids, together with the author's experience in topical applications to the nasal, oral, and pharyngeal cavities. The inhalation of nebulæ has also been advantageously used in diseases of the larynx, trachea, bronchial tubes, and lungs.

"Report on the Condition of the Insane Poor in the County Poor-Houses of New York: By Sylvester D. Willard, M.D., of Albany," is full of interest, and in the minutiæ presented bears conclusive evidence of the author's industry, integrity, and research.

"Remarks upon a Demonstration of the Optical Principles of the Ophthalmoscope, and its use in diagnosticating Diseases of the Eye: * * * By Henry D. Noyes, M.D., of New York City," is a brief, lucid, and valuable contribution.

Article XIX., by Prof. Joseph C. Hutchison, Long Island Hospital, gives four fine lithographs of a female patient, æt. 54, illustrating, in the first plate, an epithelial cancer of the left cheek, and the adjacent portions of the lips; in the second, the lines of incision for the removal of the diseased mass, together with dotted lines indicating the construction of the flaps; in the third and fourth plates, side and front views of the face in its present condition are given. Free hæmorrhage, requiring the use of ligatures, suppuration, and separation of the flaps after the removal of the pins consequent upon an intercurrent erysipelas, an approximation for the third time, by adhesive straps, after a second removal of the silver-wire suture, together with the annoyances growing out of the loosening tendencies of the discharges from the mouth and cheek, all failed to prevent a triumph of the *vis medicatrix naturæ*.

"Diploteratology, etc., by G. J. Fisher, M.D.," is a curious paper on human monsters, giving the literature of the subject, and other matters of interest.

The volume, after several historical and biographical papers, closes with the proceedings of the State Society, and a list of officers, etc., of the various county organizations.

MEDICAL COMMUNICATIONS, WITH THE PROCEEDINGS OF THE SEVENTY-FOURTH ANNUAL CONVENTION OF THE CONNECTICUT MEDICAL SOCIETY, held at New Haven, May 23 and 24, 1866. New Haven: Tuttle, Morehouse & Taylor, Steam Printers, 1866. Pp. 108.

"Medico-Chirurgical Lessons of the War," by Isaac G. Porter, M.D., of New London, President of the Society, is a *résumé* of some interest. It touches upon *Osteomyelitis*, the peculiar effects of conoidal balls, and appreciatingly refers to Circular No. 6, Surgeon-General's Office, from which most of the statistics are derived. The subject of sun-stroke or heat-exhaustion claims a share of the writer's attention; the pathological theory of Assistant-Surgeon Charles Smart, U.S.A., together with his treatment, is fully indorsed. But inasmuch as the subject-matter has appeared from time to time in periodical and other publications, we refrain from quoting at length. Suffice it to say that the address is graceful, and should have been, as it undoubtedly was, well received.

"The Prophylaxis of Phthisis Pulmonalis" and "The Therapeutic Value of Mercury and its Preparations" are both from the pen of Dr. C. L. Ives (New Haven). In the former, the view that the most complete physical training is the only and yet the sure safeguard against the common form of consumption is based upon the theory that the yellow tubercle originates in epithelial debris, and requires excretion by full and forcible inspirations of pure air. In the latter (the Ives Prize Essay) *Hydrargyrum* is degraded with all due gentleness from its niche among the ancient gods, and charged with the destruction of cell-life. It is not a cholagogue; the green color of the calomel stools is due to the subsulphide of mercury, while the change of color from clay-color to brown is held to be owing to the presence of *some stimulus* acting upon the glands of the large intestines. In the sense of interference with the nutritive process, mercury is undoubtedly an alterative; and the increased activity of the salivary glands, or, as in cathartic doses, of the glands of the colon, are but processes of elimination. Tradition errs in endowing it with so much prowess in inflammations of the serous sacs, iritis, dysentery, pneumonia, etc. Even in membranous croup its alleged influence in repressing fibrinous exudation is too slowly exerted to be of much avail. Its use in syphilis may also be questioned, since the query is pertinent whether its benefits have not been rendered nugatory by greater supplementary evils. The scepticism of the paper is certainly very suggestive. "Cystic Tumors of the Ovary," by Dr. P. W. Ellsworth (Hartford), is a brochure of rare merit, and nearly exhaustive in character. "Nebulization of Medicinal Substances, etc., etc.," by Dr. Ephraim Cutter (Boston, Mass.). The subject being fully before the profession, and the testimony adduced being corroborative rather than original, quotation is unnecessary. The paper is lucidly written. "Alcohol as a Dressing for Wounds, etc.," by Dr. W. Lockwood Bradley (New Haven). The alcohol used at the Clinical Hospital, Paris, by M. Nélaton, is about equal in strength to the dilute alcohol of the U. S. Dispensatory. It is claimed for this agent, which may be brought in contact with the wound by lint or oakum, that it favors immediate union by arresting hæmorrhage, by producing immediate coagulation of albumen, and by promoting the plastic secretion. In healing by the second intention it has a beneficent effect upon the granulations, and exerts a prophylactic power over pyæmia and erysipelas. "Tartarized An-

timony and Opium in Typhus Fever," by Dr. Worthington Hooker (New Haven). The writer, having witnessed the use of the above remedies, after the method of Dr. Graves, of Dublin, was led to examine Dr. Graves's reports of some twenty-six cases, and gives his conclusions to the effect that "the results were not only too decided, but too uniform to make it proper to refer them to anything but the medicine." The test of a second application of the remedy had also been tried in some of the cases. "The modus operandi of the tartar-emetic in tranquillizing cerebral excitement in these cases is not at all clear." The tartar-emetic, in the cases narrated, had been applied alone and in connexion with opium. "Specialism in Medicine," by Dr. Ashbel Woodward (Franklin). "The statesmen who have given birth to nations and shaped the policy of empires have been no specialists, but men whose vision covered the arena of politics." "Nature abhors hobbies and narrowness." "Fergusson, Velpeau, Mott, were too great, too thoroughly saturated with a spirit of devotion to their work, to be pinned down to a specialty."

The obituaries of Drs. Melines C. Leavenworth and Caleb H. Austin close the literary portion of this pamphlet, which certainly reflects no little credit upon the Committee of Publication.

Why Not? A Book for Every Woman. The Prize Essay to which the American Medical Association awarded the gold medal for 1865. By Horatio Robinson Storer, M.D., etc. Boston: Lee & Shepard, 1866. Pp. 86.

This elegantly written little book, unexceptionable in tone and singularly free from pedantry, discusses the subject of criminal abortion in all its bearings. The moralist and politico-economist will find much that will awaken thought, if not arouse to action, while the very large class to whom it is addressed cannot fail to be convinced—and may we not hope *converted?*—by the stern logic of its well put scientific truths.

On Spermatorrhœa: Its Causes, Symptomatology, Pathology, Prognosis, Diagnosis, and Treatment. By Roberts Bartholow, A.M., M.D., etc., etc. New York: Wm. Wood & Co, 61 Walker street, 1866. Pp. 112.

This duodecimo, which is a philosophical revision of a by no means generally understood subject, clears away much of the rubbish that has heretofore encumbered its literature. The writer, who substitutes for many of the vexed questions very tenable views of his own, makes no violent deductions, but states objections with candor, and arrives at his conclusions by logical sequences. We bespeak for the work a cordial reception on the part of the profession, and for the author additional laurels to a growing reputation.

Important Geological Discovery in California.—Prof. Whitney recently announced, before the *California Academy of Natural Sciences*, the discovery of a human skull in the formation known as pleiocene. The ancient human bones of Europe, which made so profound a sensation in the geological world, were found in the lias, a much later formation, so that the relic in question belongs not only to the earliest known pioneer of California, but to the earliest known human being. This skull, which is not entire, and the facial angle of which is very similar to that of a Digger Indian, was found in a shaft 150 feet deep, two miles from Angeles, in Calaveras county, by a miner. The shaft passes through five beds of lava and volcanic tufa, and four deposits of auriferous gravel. The upper bed of tufa is homogeneous, and without any crack through which the skull could have been introduced from above. Casts from this fossil will be sent to the principal ethnologists in Europe and the Atlantic States.—*Exchange.*

Reports of Societies.

EAST RIVER MEDICAL ASSOCIATION.

Stated Meeting, Sept. 4, 1866.

Dr. John Hart, President, in the Chair.

is medicine a science?

Dr. Morse read a paper upon the above topic. He aimed not to treat the subject exhaustively, but suggestively; not to impart knowledge, but to awaken thought. He did not regard as a strange or inexplicable fact that theories or modes of practice should change when the necessity for research, analysis, and proper understanding of the various sciences embraced in the field of medicine was an acknowledged element to be considered.

While all or any of these sciences remained undeveloped, therapeutics could be little else than empiricism. What better could be expected while hardly anything was known of anatomy, and nothing at all of physiology and pathology, while chemistry was yet wrapt up in the dark folds of alchemy, and pharmacy was confined to the preparation of charms and enchantments?

As students are often anxious to begin the study of medicine with theory and practice, so, unfortunately for the science, its first practitioners were compelled to commence with the application of it to the immediate wants of man, and that, too, while they were utterly ignorant of every tissue and organ of the body, of every form and variety of disease, and every source from which remedies were to be drawn.

In the infancy of a science, we must also allow, much indefiniteness and misunderstanding may arise from different writers using different terms to express the same idea. One may call two units *two*, and another *duo*, and another *zwei*, and each may know what he means; but another, who is ignorant of the meaning of either of the words, may not so explain them to others. Many differ greatly in their written theories who differ but little in their actual practice. The man whose theory requires the sun to revolve around the earth lives, and eats, and sleeps, and labors, just as he does who believes the earth goes round the sun. The real practice of the dogmatists and the empiricists differed but little, notwithstanding the fierce controversy which commenced between the two sects more than two thousand years ago, and is not yet fully allayed.

The practice of the homœopathists of the present day differs from ours more in appearance than in reality, though their theory differs from ours as the blackest darkness does from light, or the blankest folly from the profoundest wisdom. The physician must be something more than an encyclopædia of facts; he must by experience have acquired the requisite skill in the application of his knowledge. But without a close observance of facts and comparison of results, practice will not bring experience, or experience skill, any more than age will wisdom; but knowledge and skill are not all, constant care and eternal vigilance must be added.

Dr. M., in the course of his paper, related several instances of false diagnosis growing out of hasty and incorrect deductions, on the part of physicians even in the higher walks of the profession. He alluded to the fact that practice had, like dress, its fashions. Bloodletting was once the rage, but the type of disease has changed; cases were known where the tonsils were amputated, so fashionable had the remedy (?) become, even in acute tonsillitis, but here also with a change of type came the abolition of the guillotine.

The late Professor Patterson used to describe, in his inimitable way, a fashion that prevailed at one time

among the Scotch midwives. The doctor was called to a woman in labor. He found the patient lying on her back, with her knees drawn up, and the midwife sitting astride her abdomen, holding on to her knees, and, as she expressed it, "churning the woman to bring on the ab'ominal pains," but without much change in the type of the disease; this fashion, too, has become obsolete. Then, again, the diagnosis may be correct and the general treatment judiciously selected, but disastrous failure may lurk in the details. A physician may be too impatient to see the results of his treatment to wait for medicines to produce their proper effects before he changes his prescriptions. Another may be a few days behind the progress of the disease, and be so solicitous as to continue his visits after recovery. By the discredit brought upon the science through mistakes and errors like these is charlatanry given a pretext to exist; but even with these drawbacks the constancy of its laws is unimpaired, and the certainty of their action incapable of being gainsaid.

After a debate upon hæmoptysis, growing out of the reported illness of a member, the meeting adjourned.

Stated Meeting, Oct. 2, 1866.

Dr. John Hart, President, in the Chair.

THE LATE DR. JAMES H. ANDERSON.

Dr. Morse announced the decease of Dr. James Henry Anderson, and reported the condolatory resolutions adopted by the Special Committee.

Dr. Sterl read a memoir, in which he stated that the deceased was born in the town of Botterfin, County Cork, Ireland, where he served the usual time as apothecary's apprentice. He subsequently obtained the required license from the Hall at Dublin, and a few years later was found extending his studies at Cork; but about eighteen years ago, with his family, emigrated to America, and after a sojourn in several States finally settled down to his profession, continuing an employé of the late Dr. William J. Olliffe for upwards of twelve years. He graduated from the University Medical College last spring, and in the course of his benevolent duties was seized with a severe hæmoptysis, to which he succumbed September 7, in the forty-first year of his age.

THERAPEUTICAL APPLICATION OF THE SULPHITES AND HYPOSULPHITES.

Dr. Stein, in a paper entitled as above, gave his own and others' views regarding this class of agents substantially as follows: The internal application of these remedies refers to the zymotic class of diseases, while the external use is limited to suppurating wounds and ulcerating surfaces. After the theory of zymosis had been fully admitted, it became a matter of much interest, and certainly one of great importance, to discover an agent which should possess the power of arresting or destroying this action in the system. Although it had been long known that sulphurous acid had the effect of checking fermentation in wine-making, it was not suspected that the principle might be applied to organic fermentation in the blood; on the contrary, it was regarded as a remedy too poisonous in nature to be made available. Upon this fact a general opinion was founded, that these ferments in the body could not be neutralized, since, according to Prof. Claude Bernard, "to effect such a purpose it would be necessary to interfere with the character of the blood to such a degree that it would no longer be capable of sustaining life."

Dr. Polli, of Milan, dissatisfied, however, with this unqualified assertion, in consequence of having observed the antiseptic properties of sulphurous acid in the case of animal substances, became thoroughly convinced, upon careful investigation, that not only sulphurous acid, but also its alkaline and earthy compound, possessed the power of arresting putrefactive metamorphosis, and also organic fermentation, in the system. With this difference, that, as the former could not be administered freely without injury to the system, the latter could be taken with the greatest impunity.

Prof. Polli, in the course of his experiments, selected three dogs, to one of which he gave twenty-two and a half scruples of the sulphite of soda, to another the same quantity of sulphite of magnesia, during twenty-four hours, while to the third none was administered. They were then killed, and it was found that the *sulphited* animals resisted putrefaction for some time after the unsulphited one had undergone decomposition. This result led him to infer that, as the sulphites resisted putrefactive fermentation in the dead body, they would resist the action of morbific fermentation in the living. Acting upon this hypothesis he selected three other dogs, as nearly as possible alike in health and appearance, and injected into the veins of each a portion of the discharge collected from the nares of a glandered horse. One of the dogs had taken the sulphite of soda in large doses for some days previous to the operation as a prophylactive. The second animal was dosed with the same quantity at the time of the operation, with a view of testing its curative power, while the third, as in the first instance, was otherwise uninterfered with. The result was that the first animal suffered comparatively little, while the third suffered very much. The anti-zymotic power of the sulphites upon the lower animals having thus been well attested, the next step was to test the potency of these drugs on man. He observed that, under ordinary circumstances, and provided no incompatible agent, such as the acids, is taken in conjunction with the sulphites, these are absorbed into the blood undecomposed, and may be detected therein from twenty-four to thirty-six hours after administration; and that they are found unchanged in the urine twenty minutes after taken into the stomach. They also appear in other secretions of the body. Dr. Stein had himself taken the bisulphite of soda in large doses for a number of days, and experienced no unpleasant effects from its use. The experience of his partner, Dr. Weisse, who has taken half an ounce a day for seven or eight consecutive days, agrees with his own in this respect regarding its entire harmlessness. It would be well to mention in this connexion that while they were taking this salt they were in almost constant attendance upon the late Dr. Severin, a member of this Association, then suffering from typhus fever. The diseases in which he had found these remedies very successful are especially the eruptive and miasmatic fevers; they have also been highly recommended in pyæmia, septicæmia, puerperal fever, syphilis, etc. The first case in which he resorted to their external application was that of a man who presented himself with a compound comminuted fracture of the two last phalanges of the first and second fingers of the left hand. These he amputated, but on account of absence from the city he did not see the patient until the third day after the operation. He then found his wounds presenting an unhealthy, sloughing appearance, and accordingly directed him a solution of the bisulphite of soda, one part salt to six of water, to be used as a wash. The next day all sloughing had disappeared, and the wounds presented clean, healthy, granulating surfaces. He then continued a weaker solution, and the rapidity with which these wounds cicatrised drew from the patient the remark, "I can almost see my fingers heal." Another case was that of an emigrant, who, having suffered the usual privations and ill ventilated

quarters inseparable from a steerage passage from Germany, presented a number of small abscesses on the palmar aspect of the hand, due, in all probability, to the vitiated condition of his blood. As soon as one was opened another would appear in two or three days upon the hand and fingers, and each of these a day after being opened assumed a sloughing character, emitting a bad odor, and manifesting no disposition to heal. He put him upon the use of the bisulphite of soda internally and locally, and from that time the abscesses ceased to recur, and after the local use for less than twenty-four hours his wounds became clean, granulated, and healed rapidly. He might multiply cases, but those just cited would suffice.

His conclusions might be summed up as follows:

1. A certain class of diseases is dependent upon the presence of a specific poison in the blood which acts as a ferment, hence called zymotic.
2. Sulphurous acid has an anti-zymotic effect when present in the circulation.
3. While sulphurous acid is an irritant poison when taken freely, its alkaline compounds admit of free administration.
4. When taken into the stomach, they are, as a rule, absorbed into the circulation undecomposed, sulphurous acid being subsequently set free.
5. From these data the alkaline sulphites are valuable as prophylactive against zymotic conditions.
6. When such zymotic conditions already exist, they prove curative by arresting this action.

The deductions to be made regarding their external use are as follows:

1. A diminution of the secretion of pus from all wounds.
2. Destruction of the odor of superficial wounds, and a decrease in that of deep wounds.
3. A rendition of the pus from large abscesses, and that exuded from superficial wounds, viscous and dense, thereby insuring a better protection to the parts.
4. A destruction of the structural element of the pus globule by leaving nothing but the molecular detritus.
5. Stimulation and regulation of the reparative process.
6. Diminution in the sensibility of wounds.
7. Acceleration of cicatrisation.
8. The solution, being colorless, oderless, and clean, is well tolerated.

Mr. D. L. Smith had extensively tried the sulphites in threatened cases of scarlatina, as well as during the progress of the disease, and was ready to attest regarding their merits. He was satisfied that in an instance or so he had actually cut short the disease.

After the reading of a paper upon so-called "Spotted Fever," by Dr. S. S. Bogert, Dr. Thoms presented a large diagram, constructed by himself, in which the hygrometrical, thermometrical, and mortality record for several months had been kept by the wave-line system. His object was the exhibition of the relationship existing among these statistical elements. He was still pursuing the subject, but was unwilling to state his conclusions until he had extended his data.

The Association then adjourned.

The Relative Mortality of Phthisis.—According to the report of the State Librarian of Connecticut, in 1863, out of 7,470 deaths from ascertained causes, 1,131 were from phthisis pulmonalis; in 1864, of 8,132 reported deaths, 1,171 were from the same destructive disease; and in 1865, of 7,039 deaths, 1,108 were from this cause.

Correspondence.

NOTES AMONG FOREIGN OCULISTS.

At Sea, Sept. 19, 1866.

To the Editor of the Medical Record.

Sir—I have yet to speak of oculists in Paris and Vienna, and doubt if all that might well be told can be contained in one letter.

In Paris a new set of men are on the stage. The more prominent are Wecker, Liebreich, Giraud-Teulon, Javal, Desmarres, Jr., Galezowski, and Meyer. Follin and Cusco, who are general surgeons, both have considerable repute in the specialty. Of the veterans, Sichel still holds his cliniques, but the elder Desmarres has retired and left his place to his son.

Drs. Wecker and Liebreich divide the honor of serving the imperial family, and enjoy large patronage, while the clinique of young Desmarres is the largest, and his private practice is said to be very extensive. Dr. Wecker's clinique is that founded by Duval twenty years ago. His manner is extremely courteous, and his lectures instructive. His book, which has been in course of publication for two years, is promised to be completed this autumn. It will contain a considerable part of Donders's treatise on Refraction and Accommodation, translated by Javal. Wecker is operating for cataract by spoon extraction of both lens and capsule simultaneously. His spoon is larger than Bowman's, and circular. Unfortunately I did not see him operate.

Liebreich, who for many years was assistant to Graefe, in Berlin, is well known by his Atlas d'Ophthalmoscopie. He has established a large clinique, but was not in Paris during my stay. His keen observation and long practice in teaching, of which I formerly had abundant experience, make him popular among students. On his advent to Paris he sprang at once into a large practice. He has written many detached papers in the *Archiv für Ophthalmologie* and other papers.

Of operative ophthalmic surgery young Desmarres does the most; extraction is the attraction of his clinique. He does the operation which his father has practised: the upper section left incomplete at the summit until the capsule is opened. His cystitome is a small blade, with a tooth on the back to lacerate the capsule, and then the blade cuts through the bridge of cornea. I saw half-a-dozen operations, and they all went off smoothly. The dressing consists in plasters without any bandage. I can say nothing of results nor of after-treatment.

In one case Dr. Desmarres made the diagnosis of adhesion between the capsule and the lens, and in lieu of tearing the capsule removed it with forceps, and then, finishing the section, delivered the lens. The capsule proved to be much thickened, and the diagnosis was certainly clever.

One of the most original men among French oculists is M. Javal. He is an under-graduate, but an acknowledged authority on errors of refraction. He deals with nothing save muscular and refractive disturbances. His instrument for diagnosticating astigmatism detects the fault to the extreme refinement of $\frac{1}{120}$. It saves an immense amount of time, and in his hands, at least, works admirably. I have heard others complain that they could not use it; but this is little surprising, because I saw by witnessing Javal's examinations that it needs a little trouble to familiarize oneself with the instrument.

Javal is writing the chapter on Astigmatism for Wecker's book. This will not be a mere translation of

Donders, but his own views of the subject. He also busies himself, *con amore*, with strabismus. He takes great pains to train the muscles by various ingenious contrivances. When the operation is required, he sends to a surgeon. The gymnastic training and the optical corrections are his peculiar forte. He corrects each eye separately, not heeding the amount of discrepancy which may exist between them. In doing all this Javal does not treat strabismus simply as a blemish, but, in view of the fact that one eye has lost a large part of its function, he aims to restore binocular vision, and in doing this the squint is necessarily removed.

This result is not always possible, but Javal obtains it much oftener than can be done without his painstaking. He is yet under twenty-five years, talks English with fluency, also German and Italian. No one in Paris impressed me so much as an original and independent thinker. The field of physiological optics is wide, and little inviting to the majority of medical men. But we begin to realize what importance it has in practice.

Another man of much the same turn of mind, and who cultivated physiological optics long ago, is M. Giraud-Teulon. We are indebted to him for the binocular ophthalmoscope. He has written a well known treatise on "*Vision Binoculaire*," and another on Strabismus. In the last volume of the French translation of Mackenzie on Diseases of the Eye, he has written the chapter on Refraction and Accommodation. This work is just completed; it supplements the defective portions of the original treatise, and is now a kind of encyclopædia of ophthalmic science and art. Mackenzie, Warlomont, Testelin, Liebreich, and Giraud-Teulon, are its collaborators. So much has been added by the French authors that their contributions well deserve to be translated and added to the English original.

Nothing can exceed the courtesy with which M. Giraud receives professional visitors; he makes his cliniques subservient to their advantage. His lectures, which relate much to optics, are singularly lucid and adapted to the student's apprehension.

Finally, for my list must be brought to a close, Galezowski is cultivating yet a different field. He is endeavoring, by observation in the hospitals, to establish the connexion between brain disease and loss of sight. He makes examinations with the ophthalmoscope in every case of cerebral disorder, and is frequently able to secure autopsical inspection. He adds another link to the chain of cerebral symptoms, and that the facts he discloses are not without great value in hospital practice may be seen by referring to the cases he has given in his recent book.

For convenience of examination he has constructed an ophthalmoscope which does not need a dark chamber nor give the patient any trouble. It is the usual mirror and collective lens mounted in a telescopic tube, whose end rests against the patient's forehead, and permits him to remain in the recumbent position. This form of instrument is indispensable to every general hospital.

Why should a physician, investigating brain disease, neglect to question the retina, choroid, and optic nerve any more than he does the heart, the stomach, or the kidneys?

Galezowski is also young, but has the confidence of many of the older physicians in the hospitals, who seek his services in cases where the interior of the eye may reveal useful facts. He is almost daily at the Hotel Dieu, and has the run of many other hospitals, and the great advantage of being able to get post-mortem specimens.

My letter runs on and leaves much untold. Vienna yet remains. Of this hereafter.

Truly yours,
H. D. Noyes.

LAWS CONNECTED WITH THE PROPAGATION OF SCARLET FEVER.

To the Editor of the Medical Record.

Sir—The successful investigation of the laws of Asiatic cholera, during its present invasion of Europe and the United States, inspires the confident hope that the laws which control other zymotic and pestilential diseases may also, ere long, be discovered and acted upon.

The following propositions in regard to scarlet fever are set forth, rather for the purpose of exciting inquiry and directing attention to the subject among our profession than from any expectation that their truth will be generally admitted at this time. The difficulties attending such investigation are far greater than those connected with cholera, and it may be that they are insuperable.

1. *Cholera*, *small-pox*, *measles*, and *scarlet fever* are all *Asiatic diseases*, and were imported into Europe from thence, and into North and South America. *Small-pox* appeared in Europe as early as 570 A.D.; *scarlet fever*, in 1557. *Measles* was probably introduced into Europe at the time of the invasion of Spain by the Saracens in the eighth century, and was generally confounded with small-pox, even as late as 1674. The distinction was first clearly pointed out by Sydenham in 1676. *Measles* was also confounded with *scarlet fever* and mistaken for it, until the appearance of Dr. Withering's *Essay on Scarlet Fever*, in 1793. Asiatic cholera first invaded Europe in 1830, and England in October, 1831.

2. *All these diseases are infectious* or *contagious*, not essentially epidemic; although during favorable states of the atmosphere they may assume epidemic characters, and be modified accordingly. In other words they are all *specific* diseases, and arise from specific causes, but are promoted and disseminated more widely by the aid of various concurrent causes, among which unhealthy constitutions of the air, a high dew-point, dirty, crowded, and close apartments, and crowding of the sick, are the most prominent.

3. There is no evidence that any of these diseases are caused by a "*mysterious unknown constitution of the air*," though aggravated by certain atmospheric conditions, to which the term *epidemic* is applicable.

4. There is no satisfactory proof that any *specific virus*, given off from the living body, is capable of permanent suspension in the atmosphere, or can be conveyed, unchanged, through pure air to great distances. On the contrary, the evidence is quite conclusive that the moment such poisons, exhalations, or miasms, come in contact with the external atmosphere, they are diffused through it, and that by such diffusion their infectious properties are destroyed; and though, when pent up in close, unventilated rooms, or filthy ships, they may acquire some degree of permanence, much concentration, and virulence, yet when they once pass into the ocean of pure air they disappear as a drop of rain in an ocean of water. Pure air has the property, then, of neutralizing and destroying such exhalations and poisons, which may be regarded as a grand provision of nature for our well-being.

5. *Scarlet fever* is, comparatively, a new disease in the United States. It was never known, at least to any extent, as far south as North Carolina previous to 1830; and Dr. Benjamin Rush remarked, sixty years ago, that scarlet fever was so rare that "one physician would not be likely to see it more than once in his lifetime." So far as I can learn, this disease was first recognised in this country in New Hampshire in 1735, and it took nearly or quite fifty years in reaching the Hudson river, and one hundred before it appeared in the extreme south.

6. The following is the mortality from scarlet fever in the city of New York for the corresponding years:

Years.	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829
No. of cases..	5	5	3	1	2	3	10	24	4	11	188

Years.....	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
No. of cases..	246	258	224	179	408	174	202	579	257	158	391

Years.....	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863
No. of cases.....	517	1052	1283	1325	668	840	1929	1278	928	903

The same increase has been observed in all our principal cities and through the country generally. In Boston, for example, in the ten years, 1811 to 1820, the deaths from scarlet fever were 30; 1821 to 1830, 48; 1831 to 1840, 972; 1841 to 1849, 1468; which is a difference of *four-tenths of one per cent.* of all the known causes of death, to 5.43 per cent. between the first ten and last ten years above mentioned.

7. The cause of scarlet fever is a *specific miasm* or *poison*, given off in the exhalations or secretions from the skin and lungs; having laws of its own; multiplying and propagating itself under favoring conditions, like Asiatic cholera. Its intimate nature and origin are unknown.

8. No case of scarlet fever ever occurs, except where the *specific virus* is present.

9. This infectious virus may remain latent in *fomites* on walls and furniture of houses, etc., for many weeks, perhaps months, where air is not fully admitted.

10. The young are chiefly susceptible to scarlatina infection, and it rarely attacks an individual a second time.

11. The specific virus of this disease does not originate *de novo*, any more than the infection of small-pox or Asiatic cholera; and the disease never invades any place or house, unless it is introduced by a poisoned or infected person, or by contaminated articles or *fomites*.

12. The same causes predispose the system to the invasion of this miasm as to that of cholera and other pestilential diseases, viz. all those which lower the vital forces and the power of vital resistance.

13. The severity of the attack, other things being equal, will be in proportion to the dose of the specific poison taken into the system.

14. Like cholera, small-pox, and measles, the precise time or place of the origin of this specific seminium is unknown, but practically this is of no importance whatever. This furnishes no argument against its existence.

15. Causes are often to be inferred from their effects; and the laws of infection, and the numerous circumstances connected with the sources, preservation, and dissemination of infectious matters, admit not of a rational doubt of their perpetuation for long periods, although their effects may be rarely witnessed or developed only after long intervals.

16. It is by no means remarkable that the source of scarlatina infection cannot always be traced; it is so in cases of small-pox, Asiatic cholera, and other well known infectious diseases.

17. There are many isolated localities and islands which have not been invaded by scarlet fever, although all the causes which have been supposed to be capable of originating the malady *de novo* exist there in their greatest intensity.

18. Like cholera, when introduced into a place, the scarlatina poison will attack all the susceptible who are exposed to it, and will then disappear, perhaps for years, before it invades that place a second time.

19. The scarlatina infection now abounds, and is widely disseminated in all our large cities, especially in low, damp, ill ventilated, and crowded neighborhoods; in nearly all confined courts, lanes, alleys, and tenement-houses; and is liable to attack all new-comers who may take up their residences in such places.

20. The *media* by which the poison is conveyed to the healthy are the atmosphere, and substances which have imbibed emanations from the bodies of the sick (*fomites*). How far it may be conveyed is unknown; much will depend on the humidity and motion of the atmosphere, and the strength of predisposition in those exposed to its influence.

21. Scarlet fever may be propagated by *inoculation*, and by contact of the morbid secretions of the disease.

22. The duration of the period in which the capability of infection is possessed by fomites is uncertain, and has not been ascertained. Woollen bed-clothes and feather-beds retain it the longest, especially when kept closely shut up from the air.

23. The susceptibility to the infection of scarlatina is exhausted after the disease has run its course.

SANITARY MEASURES AGAINST SCARLET FEVER.

24. Persons attacked with scarlatina in families, schools, manufactories, or large establishments of any kind, should be kept isolated, and free from all communication with the young who have not previously had the disease.

25. Where children in boarding-schools have been exposed to the infection, it is better for them to remain, and if attacked, treated in the establishment, than returned to their homes, where there are other children.

26. The poison of scarlatina, like that of all pestilential diseases, is, doubtless, of an *organic nature*, and of course capable of decomposition and destruction by chemical agents or *disinfectants*.

27. As the contagious principles or *germs* of scarlet fever are not, like those of cholera, contained in the gastric or alvine evacuations, and hence capable of destruction by placing disinfecting agents in vessels receiving the dejections and matters vomited, but are of a volatile nature; disinfectants of an *aeriform* character should be employed, such as *chlorine*, *sulphurous* and *nitrous acid vapors*, or a *high temperature;* in short, such agents as will penetrate into all crevices and corners, and permeate all clothing and materials which have been exposed to the contagion.

28. Boards of Health should thoroughly disinfect, by the above means, all tenement and other dwelling-houses, where cases of scarlet fever have recently existed; and should recommend, by public circulars, proper measures to be pursued wherever scarlet fever obtains a foothold.

29. Before moving into dwellings whose previous history in regard to this disease is unknown, thorough disinfecting measures should invariably be employed in every part. There are probably few old dwellings in large cities in which this disease has not at some former period prevailed.

30. The predisposing and coöperating causes of cholera and scarlet fever being the same, there is the same necessity for adopting the most thorough sanitary measures as to civic, domestic, and personal cleanliness in both.

31. All measures which promote the general cleanliness of cities, tend, in the same degree, to limit the mortality from scarlet fever, as well as cholera, fevers, small-pox, and measles, etc.

34. The above laws will equally apply to small-pox and measles, with some modifications.

I am, sir, very respectfully yours,

L.

The East River Medical Association, of the city of New York, will hold its first anniversary meeting on Tuesday evening, November 6, 1866, at eight o'clock.

THE DEATH OF DR. BRAINARD.

To the Editor of the Medical Record.

Chicago, October, 1866.

Sir—Dr. Brainard is dead. At fifteen minutes past nine in the evening of October 10, the great surgeon, the distinguished professor, the eminent citizen, expired. Less than one month ago, after a prolonged absence in Europe, he returned to his home, bringing renewed health and unwonted zeal for the prosecution of those labors which have made his name a household word throughout the country. On Tuesday afternoon he lectured as usual before the students of Rush Medical College. In the evening I saw him at his office, where he was reading and conversing, with every appearance of perfect health. It seemed impossible the next day to believe the announcement, which before noon ran like a chill through the heart of the great city, that Dr. Brainard was dying with the cholera.

It was too true. At midnight the angel of death came to the bedside of the victim, whispering softly in his ear. It was a warning so gentle that few would have heeded its import. At breakfast-time the doctor was dressed, but he informed his nephew that during the night he had felt considerable uneasiness, which he hoped was sufficiently relieved by the use of the vinegar of opium. While reading the morning newspaper, a violent paroxysm of vomiting suddenly declared itself; and a very brief interval of time sufficed for the development of all the symptoms of advanced cholera. Before the middle of the afternoon all hope of recovery was abandoned; and having arranged his worldly affairs, the great man laid himself calmly down to die. He passed rapidly into a state of profound collapse, to which was soon added an almost complete abolition of consciousness. There was no attempt at reaction; one by one the icy fingers of death unloosed the silver cords of life, and at fifteen minutes past nine in the evening Daniel Brainard was no more.

This melancholy event excited a profound sensation in our community. The day was dark and gloomy; the epidemic was at its height; the ensigns of mourning were overshadowing the public buildings, in memory of those officers of the city government whom the pestilence had stricken. The medical students adjourned their course of study for a period of two weeks, and bore the sorrowful tidings to every hamlet in the North-west. The members of the medical profession gathered at the Court-House to unite in their testimonials of respect for the honored dead, and on the morrow a solemn assembly at St. James's Church told how deep was the feeling of the loss which we have sustained.

It is not for your correspondent to discourse upon the life and the character of our departed teacher. To narrate the events of that career would be to touch upon all that pertains to the history not only of surgery, but of civilization in the Western States. Coming from the East, thirty years ago, Dr. Brainard discovered in the little town under the walls of the old fort, near the river Chicago, an opening—a widening field for the exhibition of his genius. He rose at once to the leadership of his profession, and the fame of his skill outstripped even the marvellous growth of his chosen city. Twenty-three years ago, he laid the foundation of Rush Medical College, an institution which stands to-day the proudest monument of its author's fame. Twenty-three years ago he was the leading spirit in the management of the oldest medical journal that is circulated in the West, and from that day to the present it would be hard to find anything of value to the profession in the North-western States which cannot be traced directly to its source in the teeming brain of this wonderful man.

Dr. Brainard was blessed with an iron frame, and a commanding person. His figure was tall and stately; his manner was the soul of dignity. One could not enter his presence without feeling a sense of the greatness of the man. As a teacher he stood without a rival. The order, the method, and the clearness of his lectures have never been surpassed. As a writer he is best known by the essays which have been scattered through the medical journals of the country. The great work of his life, though long announced, remains incomplete—cut short by his untimely death. As a scholar his attainments were not bounded by the limits of his profession. There was no department of science which he had not explored; there was nothing too low, nothing too high, for the range of his observation. Strength and perseverance were the pillars of his fame, and to no human power did they ever yield

M.

A QUERY REGARDING THE SOURCE OF CHOLERA ON BOARD THE ENGLAND AND VIRGINIA.

To the Editor of the Medical Record.

Sir—The source of cholera on board the steamers *England* and *Virginia*, during their voyages to this port, in the fore part of this year, has been a disputed question among physicians, some insisting upon its local origin, from the overcrowding without ventilation, and the exceedingly filthy habits of the passengers; others claiming it to have been introduced by passengers recently arrived from infected places ashore. In the discussion on the subject, at a recent meeting of the Academy of Medicine, reported in a previous number of the Record, Dr. Heath, the medical officer of the *England*, emphatically denied that there had occurred any circumstances on board to which the disease could be properly attributed.

The following extract, from the *Lancet* of April 28, gives a different version of the case:

"As to the dirty habits of the emigrants, they are described in the following terms by the highest sanitary authority in Liverpool: 'I have asked the Medical Inspector of Emigrants, and one of the Chief Managers of the National Navigation Steam Co., about the condition of the passengers on board the *England* when she left this port. Both these gentlemen concur in saying that there was no appearance of sickness or of debility among them; but the Manager states that the emigrants by the *England* were the dirtiest of the whole lot which have been passed this year. If he be correct, the statement is important, for the Dutch and Germans on board the *Helvetia* are the dirtiest people in their habits whom I have ever seen. The surgeons assure me that not unfrequently they rinse out with water the pan used for the reception of the excrement and urine of their children, and then employ it as a cup for drinking and for their dinner mess; and no power or persuasion will prevent them leaving their dejections on the floors, the bedding, or the clothes.' "

The *England* had on board 37 cabin and 1,059 steerage passengers, and a crew of 122 men—in all 1,218 souls.

The question arises at once, on reading such a statement, Is there not in these circumstances ample cause for cholera, or some other equally destructive poison, and could not the disease have been avoided by the proper enforcement of sanitary rules?

J. H. G.

New York, October 23, 1866.

Obituary.

DR. R. W. GIBBES.

Dr. Robert W. Gibbes died in his native city, Columbia, S. C., on the 15th ult., aged fifty-seven years. After graduating from South Carolina College in 1827, he commenced the study of medicine. He was twice Mayor, and at one time acted as assistant professor of chemistry at his own *alma mater* with such success that he was offered a professorship, which he declined. His tastes and habits were literary and scientific, and he contributed largely to the medical and scientific journals of the country. Among his literary productions the more important were, "Memoirs of James De Veaux and Charles Fraser, Artists," and a "Documentary History of the American Revolution," besides a compilation consisting of several volumes of the "Documentary History of South Carolina." His name is honorably mentioned by both Humboldt in "Kosmos," and by Audubon in his Ornithology. The Smithsonian Institution tendered him the publication of his plates on palæontology and fossil remains at the cost of the Institution. He was the President of the South Carolina Medical Association before the war. Dr. Gibbes was eminently public-spirited; and to escape heavy loss it became necessary for him to become the publisher of the *Columbia South Carolinian*, which he edited for several years. He lost severely by the burning of Columbia—his fine mansion, with its valuable collection of paintings, fossil remains, and geological specimens, falling a prey to the flames. He leaves a numerous family of sons, daughters, and grandchildren.

W. H. KEMMERER,

STUDENT OF MEDICINE.

Died near Allentown, Pennsylvania, of typhoid fever, on Monday, October 8, 1866, William H. Kemmerer, late a student of Bellevue Hospital Medical College.

At a special meeting of the students of the Bellevue Hospital Medical College, held October 12, 1866, the following preamble and resolutions were adopted:

Whereas, It has pleased Almighty God to take from us, by death, our classmate and friend William H. Kemmerer; therefore,

Resolved, That while, with heartfelt sorrow, we mourn this sad event, we yet recognise in it the hand of Him who has declared that though "clouds and darkness are round about Him," yet "righteousness and judgment are the habitation of His throne."

Resolved, That in his death we have lost a kind and dear associate; the College, a faithful and exemplary student; and society, one whose conscientiousness, courtesy, and Christian character, showed that he would have become, had he lived, one of its most useful members.

Resolved, That we tender to the afflicted parents, sisters, and other relatives of the deceased, our deepest sympathy.

Resolved, That a copy of these resolutions be presented to the family of the deceased, and that they be published in the Medical Record of this city.

B. S. Thompson, J. L. Kline, C. D. Martin, W. P. Kistler, George R. Kent, F. Farnsworth, E. S. Belden, *Committee*. J. C. Brobst, *Secretary*.

Dr. Benjamin Hobbs, Surgeon U.S.C.T., died at the camp of the One Hundred and Sixteenth U.S.C.T., White's Ranch, Texas, August 22, of gastro-enteritis, aged twenty-five years six months and twenty-seven days.

New Publications.

Combined Labor necessary for the Future Progress of Medicine. By John Hughes Bennett, M.D., F.R.S.E., Professor of Institutes of Medicine and Clinical Medicine in University of Edinburgh, etc. From the author.

Malaria the Common Cause of Cholera, Intermittent Fever, and its Allies. By A. S. Macgowan, L.R.C.P., London; M.R.C.S., Eng.; L.S.A., London, etc., etc. Reprinted from the *Medical Mirror*. From author.

A Treatise on Vesico-Vaginal Fistula. By M. Schuppert, M.D., Surgeon of the Orthopœdic Institute at New Orleans, La. From Author.

A Handy Book of Ophthalmic Surgery for the Use of Practitioners. By John Z. Lawrence, F.R.C.S., M.B., University London; Surgeon to the Ophthalmic Hospital, Southwark; Editor of *Ophthalmic Review*, etc., etc., and Robert C. Moon, House Surgeon to the Ophthalmic Hospital, Southwark. Philadelphia: Henry C. Lea. 1866. 8vo. pp. 191.

The Science and Practice of Medicine. By William Aitken, M.D., Edinburgh, Professor of Pathology in the Army Medical School, etc., etc. In two volumes. Vol. 1. From the 4th London edition, with additions by Meredith Clymer, M.D., late Professor of the Institutes and Practice of Medicine in the University of New York, etc., etc. Philadelphia: Lindsay & Blakiston, 1866. 8vo. pp. 955.

Medical News and Items.

PERSONAL.

Dr. Joseph Pilz, Professor of Ophthalmology in the University of Prague, died suddenly of apoplexy on the 7th of August. Professor Pilz was distinguished as a physician and operator as well as a writer. His text-book on Diseases of the Eye is one of the best in the German language.

Dr. Rutherford Haldane has resigned the editorship of the *Edinburgh Medical Journal*, and is succeeded by Dr. Saunders.

Dr. Joseph Jones has been appointed to the chair of Pathology in the Medical Department of the University of Nashville.

Drs. Ezra B. Sprague, Oswego, N. Y., and G. A. Dayton, Mexico, N. Y., have been appointed Pension Examining Surgeons.

Dr. John Brown, of Edinburgh, Scotland, the accomplished author of "Locke and Sydenham," and more recently of "Spare Hours," we are pained to learn, on the authority of a literary journal, has become hopelessly insane.

William Henry Church, an alumnus of the College of Physicians and Surgeons, N. Y., class of 1849, Surgeon to Bellevue Hospital, and late Surgeon U. S. V., died at Pau, France, September 27, in the forty-first year of his age.

Dr. Klebs, for many years an assistant of Virchow, in Berlin, has been elected Extraordinary Professor of Pathological Anatomy in Berne.

The Medical Society of the County of New York will celebrate its sixty-first anniversary by a collation at the Ashland House, November 12, 1866. The profession in general are included in the invitations. Tickets $2.

THE PROPOSED GENERAL HOSPITAL FOR THE INSANE IN CONNECTICUT.—Middletown, Bridgeport, and New Haven are bidding for the location of this proposed institution; but since New Haven possesses the best claims to the honor, the Board of Trustees, which will soon meet, will probably decide in its favor. Thirty thousand of the two hundred thousand dollars appropriated by the Legislature will be available this year.

P.S.—At this meeting of the Trustees, Middletown was fixed upon as the location.

AMERICAN OPIUM CULTIVATION.—It has long been known that the species of poppy from which opium is obtained is indigenous in Northern Mexico, where it grows in great profusion on the extensive plateaux of that country. According to the Report of Major Duffield, United States Marshal in Arizona, this plant is also found growing in its natural wild state in the valley of the Santa Cruz river.

Mr. Emanuel Weiss, of Pennsylvania, has recently visited the regions where the poppy is found, for the purpose of examining the country with reference to its availability for opium culture. In a circular which he has just issued he exhibits the China trade with England and the United States, from which it appears that the British Government exchanges opium with the Chinese for tea, and transfers a large quantity of the latter article to the United States, for which we pay in gold. If it be true, as set forth in this circular, that "two families, with but two able field-hands, can put ten acres of poppies under cultivation, which will yield about 1200 pounds of merchantable opium, containing nearly ten per cent. of morphine," it will prove one of the most profitable crops in this country. Then, too, the poppy matures rapidly, and is harvested within one hundred days from the date of planting.

THE PRIZE OFFERED BY THE ROYAL ACADEMY OF MADRID.—The Royal Academy of Madrid has, among others, offered the following prize: For the best treatise on the *Critical Examination of the Various Methods of Treatment which up to this time have been practised in Penetrating Wounds of the Chest and Abdomen.* The first prize is two thousand realen vellon, a gold medal, a special diploma, and the title of Corresponding Member of the Academy. The second prize is a silver medal, special diploma, and the title of Corresponding Member of the Academy.

The treatise must be written in the Spanish language and sent before the 1st of September, 1867, with the name and residence of the author in a sealed packet. A motto should accompany the treatise. It should be addressed, "A la Real Academia de Medicina en Madrid (España)." The treatises obtaining the first and second prizes will be printed at the expense of the Royal Academy, and two hundred and fifty copies given to the authors.

The prizes will be awarded at the public session of the Academy in 1868. (As we understand it, this prize is open to the competition of American as well as other medical men.)

The Spanish title of the treatise will be: "Examen critico de los diferentes tratamientos que se han empleado hasta el dia contra las heridas penetrantes de pecho y de vientre."—*Wiener Med. Presse.*

DENSITY OF POPULATION.—The new volume of the British Board of Trade Statistical Tables gives the following statement of the population of countries with more than 10,000,000 inhabitants, according to the most recent census: United Kingdom, 258 persons to the English square mile upon an average; Italy, 225; France, 180; Prussia, 179; Austria, 155; Spain and Balearic Islands, 84; Turkey, 19; United States, 11; Russia, 9; Russia in Europe, 31; Brazil, 3. The population of the eight above-named states of the Old World exceeds 270,000,000.

MEDICAL COLLEGE COMMENCEMENTS.

COLLEGE OF PHYSICIANS AND SURGEONS. — The opening exercises for the regular winter session of this College took place in the large hall of the edifice, at the corner of Twenty-third street and Fourth avenue, on the 10th ultimo. President Delafield referred briefly to the progress of medical science within the last few years, citing the mortality of the recent epidemic, as compared with that of previous visits, as indicative of the development of the profession, exhibiting its efficiency in the prevention as well as cure of the disease. He further referred to the great lessons learned in the experience of the late war, in the important matters of hospital establishment, transportation of sick and wounded, systematized treatment of great numbers, and sanitary precautions. Professor Samuel St. John then read an eloquent paper on the importance of the study of physical science as a means of attaining a proper discipline of mind, training the intellect, and fitting the future practitioner for a proper understanding and correct appreciation of the numerous problems of disease which he will be called upon to comprehend and decide. The address, which was listened to with great attention throughout, occupied about an hour in its delivery.

BELLEVUE HOSPITAL MEDICAL COLLEGE formally inaugurated their session on the 10th ultimo, in their building foot of Twenty-sixth street (East river). Prof. Alexander B. Mott, in his introductory address, warmly eulogized the combination of didactic and clinical instruction, and after an allusion to the good effected by the profession during the late war, and specially referring to the aid afforded them by the women of the country, he gave some points of interest connected with the history of the College, and closed with an exhortation to the students. Professor R. Ogden Doremus followed him with a series of experiments, exemplifying the remarkable progress made in science by the use of the spectroscope, which rendered our knowledge of bodies, and even of the sun, moon, stars, and nebulæ, so extremely precise that even the metal sodium could be detected in the quantity of the one hundred and ninety-five trillionth of a grain. His experiments and clear explanations were received with great applause, and were concluded with a few apt quotations.

UNIVERSITY OF NEW YORK—MEDICAL DEPARTMENT. —The Introductory Lecture to the Winter Course was delivered by Professor John W. Draper, on the evening of the 15th ultimo, in the Medical College, New York Hospital, Worth street, near Church. His theme was, "Medicine as a Social and Individual Science." As a social science he showed how the development of the sciences, medicine included, had not only been the means of preserving human life, when once called into being, but of actually increasing the number of such lives. When William the Conqueror invaded England, the population of that island may be estimated at two millions of persons. In the reign of William III. it had reached about five millions—a little more than doubled itself. Between these two sovereigns there elapsed six hundred years. Turning from our ancestors to ourselves, we find our population has doubled every twenty-five years. Immigration could not explain this phenomenon, as might be readily perceived by a glance at the condition of the African race in the South. With the abolition of the slave trade, in 1808, the importation of negroes absolutely ceased. Yet from 1810 to 1860 they doubled in about every twenty-seven years But preferring to look at a race not so far separate from ourselves, you may look at our European ancestral stock. In 1801, the population of England was

15,500,000. It doubled in forty years. That is not so rapid an increase as ourselves; but England lost by emigration, in forty or fifty years, 4,500,000 souls; we gained in precisely the same ratio. He likewise proved by statistics the average gain in the duration of human life, which has kept pace with the sanitary improvements of the present century. In the thirteenth century, when man cared but little for personal cleanliness, and still less for social comforts, he increased much less rapidly and died much sooner.

As an individual science it was worthy of the most assiduous culture. Systematic arduous study was to be the rule, if eminence was to be gained. Popular credulity was commented upon in pithy terms, and the student enjoined to avoid charlatanism, which often presented itself in the most alluring shapes.

At the close of the lecture, an exhibition was given, by Professor Henry Draper, of his recent improvement in adapting the microscope, by the aid of photography and the magnesium light, to the purpose of public teaching.

Suicides in England.—The number of known suicides in England in 1864 was 1,340. In the seven years 1858–64 it has averaged sixty-six in every million of population.

PROGRESS OF THE CHOLERA.

In Asia.—A Constantinople correspondent (Sept. 27) thus writes: "Constantinople has thus far been perfectly free from cholera this year, but it has raged in many parts of the Empire, and is still very severe at certain points. On the Danube it was severe in July and August, and some places were almost depopulated. It is now raging in Caramania, Mesopotamia, and on the Persian frontier. The last news from Oroomiah reported 200 deaths a day in a population of about 30,000, and the disease was spreading towards Turkey and Russia.

"In Mosul, Maidin, and Diarbekir, it was severe in July, but it passed away to break out again with increased force the first part of the present month, when there were more than fifty deaths a day in Diarbekir."

In Prague the cholera is on the increase. In Brunn, on the contrary, on the decrease. Recently it has appeared in quite a severe form in Pesth. In Berlin it is still on the increase. Up to the 14th of August, 5866 persons have been attacked, of whom only 981 have as yet recovered, 3306 have died, and 1579 still remain under treatment. The disease also rages in Breslau, 150 persons dying in a day. In Vienna it appears only sporadically as yet. The deaths in that city in the month of July numbered 1851, of which 102 were children born dead. Causes of death were predominantly tuberculosis and inflammation of the intestinal mucous membrane. (The population of Vienna is about 700,000.)—*Wiener Medizinische Presse*, Aug. 19.

In France.—The French government, so long mute in regard to the action of cholera in Paris, has at last the following official note inserted in the *Moniteur:*

"The administration deems it a duty to make known, by the publication of the following statistics, what has been the march of the epidemic cholera in Paris during the last two months.

"The epidemic appeared in the beginning of July. It attained its maximum of intensity in the first days. The number of deaths in the city and hospitals altogether never exceeded 150 per day. At the end of July the epidemic had already sensibly diminished. The average of deaths per day in the hospitals during August was twenty-three; it was only fifteen in the nine first days of September. It will be seen by these numbers that, considering the population (1,667,841 inhabitants), the epidemic has been very lenient upon so large a population, and that in a few days it will likely have entirely disappeared."

The average of deaths is only fifteen per day in the hospitals. But how is it with regard to the mortality in town? If the Parisians are contented with this statement, why should we be dissatisfied?

In the United States, the present record of the cholera is conceded to be that of its decline. But for the arrival of the *Helvetia* on the 10th ult., from Liverpool *via* Queenstown, with twenty cases on board, New York city might be pronounced as well nigh rid of the disease, since even the second visitation at Governor's Island was effectually controlled before the close of the past month. We might also state in this connexion, that, in accordance with the suggestions of Deputy Health Officer Bissell, the hospital-ship *Falcon*, and the steamship *Illinois*, will be, if they are not already, removed from the Lower Bay to Gravesend Bay, where an anchorage may be had a mile from shore. The reason assigned for the change is, that the patients from the *Helvetia*, who on the 20th ult. numbered twenty-three, cannot be properly cared for in the Lower Bay, on account of the rough weather of the season.

There were 127 deaths by cholera in Philadelphia during the week ending Oct. 13th; a slight advance upon the previous report.

Dr. Snow, the Health Superintendent of Providence, R. I., in his official report of Oct. 4, the insertion of which was accidentally omitted in the number just previous, uses the following language:

"It may be said, with truth, that the summer season of 1866, so much dreaded before it came, has been more healthy in this city than the average for a series of years.

"The occurrence of a few undoubted cases of Asiatic cholera, and a marked modification of the symptoms of other diarrhœal diseases, show that the epidemic or atmospheric cause of cholera has been in the city.

"An examination of the records of mortality, and of the modifications of the symptoms of diarrhœal diseases during the season, shows that the epidemic cause of cholera has existed in the city during about the same period as in former visitations, and that its effects have followed a similar course, being most severe about the middle of August, and declining after that date.

"The reasons that we have escaped so remarkably the effects of the disease are perfectly evident. They are *first*, because the epidemic cause of cholera has been much less virulent than it was in 1849 and 1854; and *second*, because the city has been far better prepared for the disease than it was in those years.

"The primary cause of cholera still lingers in the city, one case of the disease being reported to-day. We may have other cases; but there is no longer any danger of an epidemic of cholera during the present year."

The choleraic death-wave of Chicago, Ill., has from the first risen and fallen in obedience to fickle, perhaps poorly understood laws. We have it on good authority, however, that the mortality has never attained eighty, which is a very low rate for its population.

As regards St. Louis, Mo., we have no very late advices; but the official report, which embraces a period extending from August 1 to latter part of September, figures up the mortality, from this cause, to 8,500.

The Health Officer of Cincinnati, O., which city is now almost exempt, reports that the number of deaths from cholera there during the months of July, August, and September, was 1,406, of which 714 were males and 692 females.

Original Communications.

TRAUMATIC STRICTURE.

PERINEAL URETHROTOMY WITHOUT A GUIDE.

By R. B. MAURY, M.D.,
PORT GIBSON, MISS.,
(Formerly House Physician to Bellevue Hospital, New York.)

The very instructive lectures of Prof. Van Buren on Traumatic Stricture, in the Medical Record, have suggested the publication of the following case, which occurred in my own practice nearly six years ago. It affords an apparent exception to the law so absolutely laid down in Lecture I., that there is no such thing as permanent cure of traumatic stricture by the act of the surgeon, except upon the sole condition that the patient shall keep up the systematic and regular passage of a full-sized instrument upon himself, after the division by the knife. In this case the cure seems to have been permanent and complete; and for more than a year after the operation was performed, during which time no instrument whatever was passed, there were no signs manifested of a recontraction of the cicatrix.

On September 23, 1860, I was called to see G. W., a laborer, aged fifty years, suffering with urinary abscess. The scrotum was largely distended with pus, and the perineum invaded by inflammation. Two incisions were made for the evacuation of matter. In one week the swelling had subsided, and the urine was discharged freely through the sinus which had formed.

The history of the case was that years before he had had repeated attacks of gonorrhœa, from which he suffered no material inconvenience; that about sixteen months previous to his coming under my care he had injured himself in the perineum, while riding a raw-boned horse, eight miles, in great haste, and without a saddle; that for several days after the ride he had passed blood from the urethra, and experienced great difficulty in making water; and that within a short time afterwards he had an abscess in the scrotum, which, opening itself, discharged pus and urine. Since then the difficulty of passing water by the ordinary channel has steadily increased; he has had repeated abscesses, which have opened through the scrotum and the perineum; and at the present time, not more than one-third of the urine is passed through the meatus, the rest being discharged through two sinuses.

He has been under the treatment of several physicians, who seem to have overlooked the real nature of the case, and to have regarded it as some disease of the testicle or scrotum.

Upon exploring the urethra, three strictures were found: the first about three inches, the second five inches, and the third just seven inches from the meatus; this last, from the history of the case, was supposed to be traumatic, the other two being attributed to gonorrhœa. The anterior and middle strictures were easily passed by a No. 4 steel sound; but the third—seven inches from the meatus, was impassable by the smallest metallic or gum instrument in my hands.

It was thought that the two first strictures could be cured by dilatation, and the treatment was conducted with that view, while constitutional measures were used, as far as circumstances would permit, to facilitate the passage of the third. The case thus went on to the middle of January, 1861, but the result was unsatisfactory in the extreme. All my efforts to pass the third stricture failed, though the patient was twice chloroformed to enable me to do so. He was of a restless disposition, and could not be induced to conform to the necessary restrictions in regard to rest and diet. Abscesses in the meantime continued to form, opening a way through the perineum, and nearly all the urine was passed through the resulting sinuses. Being satisfied that I could do nothing for the case except by dividing the stricture through the perineum, I decided to operate, and on the 16th of January he was placed in the lithotomy position, and chloroformed by Dr. R. G. Wharton. A No. 6 steel sound was then introduced into the urethra as far as the anterior margin of the stricture, just seven inches from the meatus; this being intrusted to an assistant, an incision was made along the median line of the perineum, one inch and a half in length, and approaching the anus as closely as could be with safety to the rectum; its depth on reaching the urethra was by exact measurement one inch and five-eighths.

The chief difficulty encountered was in keeping the median line, and striking with the knife the point of the small sound in the urethra; the search for this was tedious and anxious; five sinuses had opened along the perineum; the normal relation of the parts to each other had been changed, and the perineal septum, instead of being straight, was very tortuous. No arteries were wounded, but from the almost cartilaginous nature of the tissues, hardened by inflammation, the hæmorrhage was profuse and troublesome, and the cutting necessarily cautious and slow.

After striking the point of the sound, the stricture was thoroughly divided, and the sound easily passed into the bladder; it was immediately withdrawn, and a No. 8 silver catheter introduced in its stead, and this was secured by tapes. The stricture was found to involve the anterior portion of the membranous urethra and the beginning of the bulb.

Jan. 17.—Last evening, severe and prolonged rigors followed the operation, and fever came on; during the night the patient removed the catheter himself, contrary to express instructions; this morning it is reintroduced and secured as before. He is quite comfortable.

Jan. 19.—The catheter has not been disturbed until to-day, when it was withdrawn, in consequence of great tenderness and decided urethritis caused by its presence.

Jan. 20.—The catheter has been introduced three times since yesterday morning to empty the bladder; to-day he was allowed to pass water without it, and only a few drops escaped through the incision and old sinuses.

Jan. 21.—He was again allowed to pass water without the catheter, and not a drop escaped by the incision, the whole being freely passed by the urethra. Two days ago the full-sized silver catheter was substituted for the No. 8, which had been put in use at first.

March 20.—Since last date the urethra has been gradually and systematically dilated, and now readily allows the passage of a No. 14 steel sound. On two or three occasions, when a larger-sized instrument was passed than the urethra had been accustomed to, the granulations were broken up and a little urine escaped by the incision. Now all discharge from the urethra has ceased, the incision is healed, and the old sinuses are all closed.

April 20.—The patient was this day carefully examined. No instrument has been passed since the 20th of March, one month ago. There is now no discharge whatever from the urethra, and the steel sound No. 14 passes into the bladder without finding any obstruction or causing any unpleasant feeling. The patient was considered cured, and discharged from treatment.

Nov. 25, 1861.—On this day, nearly one year after the operation, the patient called to see me. He was in

perfect health, and said that he had not had a single unpleasant symptom referable to the urinary organs since his last visit. No instrument has been passed on him since April 20 last, when I examined him. None is passed at this time.

This man continued to reside in Port Gibson until March, 1862, during which time I saw him repeatedly, and was often told by him that he suffered no inconvenience from his old disease; of his history subsequent to that date I know nothing.

HYDRONEPHROSIS.

BEING AN ABSTRACT OF A PAPER READ BEFORE, AND PUBLISHED AT THE REQUEST OF, THE CLINICO-PATHOLOGICAL SOCIETY OF WASHINGTON, D. C.

By W. LEE, M.D.,

WASHINGTON, D. C.

While an interne at Bellevue Hospital, New York, and in the service of Dr. George T. Elliot, a case remarkable on account of its rarity came under my notice, and as it may prove a necessary introduction to the subject proposed to be treated in the present paper, I at once give the history:

Sarah McCloy, a native of Ireland, married, aged thirty-one years, and in her fourth pregnancy, was delivered, on April 13, 1864, at full term, after a not very remarkable labor, which lasted twenty-six hours, of a male child weighing eight pounds. The child seemed feeble, and unable to give vent to a loud, healthy cry. The abdomen was very large and distended, which led to the suspicion that there might be some abdominal effusion, with atalectasis. The little patient was accordingly stimulated by friction, hot and cold baths, etc., but in six hours after birth died quietly and gradually from apparent inability to sustain life, without any indications of pain. According to the statement of the nurse there was a passage from the bowels, as well as an evacuation of the bladder, before death.

Autopsy twenty-four hours after death.—Brain somewhat anæmic; the lungs were found to have here and there a small patch in a, so to speak, atalectic condition, but not more marked than is frequently the case in new-born children; and the heart presented nothing special. On opening the abdomen, however, attention was at once arrested by what *appeared* to be a marked dilatation of the ascending and descending colon, to the diameter of about an inch. What also aided the deception was a sacculated dilatation of the ureters, as though bands of fibrine had intervened to constrict portions of the tube. No such deposit was discovered, but on the contrary, by elevating the ureter, the contained fluid, in obedience to gravity, would obliterate the constrictions. The contrast between these ureters and the flattened empty bowel was very marked. The pelves of the kidneys were greatly dilated, and also distended with fluid, while of the kidney structure itself but little remained, save the cortical portion, which formed, as Grisolle happily expresses it in his description of this disease, "a sort of casque or helmet to the cyst." The bladder was much dilated, filled with fluid; its walls thickened to the diameter of about three-eighths of an inch, and its inner wall covered with fasciculi, or bundles of fibres, as though there had possibly been an undue muscular action of the coats of that viscus. The urethral canal showed no signs of obstruction or special narrowing, with the exception of an enlargement of the veru montanum or caput gallinaginis, behind which and partly beneath was an abnormally large-sized sinus pocularis or utriculus. This condition of things during life may have sufficed to produce a closure of the urethral canal, while the failure to discover any obstruction or cause for obstruction in the pelves of the kidneys along the course of the ureters, or in the bladder, would lead to the adoption of this view, notwithstanding the insufficient post-mortem evidence.

After examining the journals and records of societies in this country, England, and France, we are able to find but three cases at all similar to the one just reported. One occurred in the practice of Mr. Robert Liston (See Catalogue Path. Soc. Coll. Surg., London). The patient was a child, aged two and a half years, who died of tabes mesenterica. Here both kidneys were dilated, with scarcely any remains of the glandular substance; the pelves and ureters were dilated, the latter to three-quarters of an inch in diameter; the bladder was very large, the muscular coat hypertrophied, and the internal fasciculi very prominent; behind the prostate both the muscular and mucous coats of the bladder were dilated into a spheroidal sac two and a half inches in diameter; the prostate gland and penis were healthy; there was no foreign body found in the bladder, and no evidence to show obstruction.

M. Moreau, in 1828, before the French Academy of Medicine, presented a pathological specimen of double hydronephrosis, in which the child died thirty hours after delivery. A quart of serous effusion was found in the peritoneum; the bladder was distended as high as the umbilicus, with the muscular fibres as well marked as in many adult bladders. The ureters had attained a bulk equal to that of the little finger, while the kidneys were very voluminous, and resembled two large cysts; but the case was without a history as regards the passage of urine or presence of an obstruction.

This completes the literature, except one other case mentioned by Dr. Hillier (*Medico-Chir. Trans.*, London, vol. 48), where a morbid specimen was taken from a child of three months, in which the pelves of the kidneys were each dilated to the capacity of six ounces of fluid; the ureters were irregularly distended, but no calculi or deposit detected. No history accompanied the case.*

But little has been written on the subject, and that by French pathologists. Rayer in particular has, as far as we know, devoted more space to this disease than others. From his work on Diseases of the Kidneys Grisolle quotes largely, and Vidal but reiterates the same opinions. They assert that a new-born child is not viable when double hydronephrosis is present, and that it may be a cause of dystocia. And further, that when double it always causes a speedy death.

In the treatment of hydronephrosis, Rayer opposes strongly any puncture of the cyst, on account of the tendency to peritonitis, inflammation, etc. Grisolle, however, advises, after the employment of antiphlogistics, and when there is a disposition to the formation of pus, puncture and evacuation of the fluid, with the after-treatment by iodine injections. Dr. Hillier, of London (*Med.-Chir. Trans.*, London, vol. 48), reports a remarkable case of congenital hydronephrosis of the right kidney in a child four years of age, who was affected with dyspnœa and other symptoms consequent upon the accumulation of fluid in the abdomen, in a marked degree, since the time of birth. The case was diagnosticated as an affection of the right kidney. After the use of diuretics without effect—there being nothing abnormal as to quantity or quality in the urinary excretion, either before or during treatment, and the symptoms becoming so urgent as to threaten life,

* In the Catalogue of Path. Museum Coll. Surg., Dublin, I find a case reported presenting a somewhat similar condition of things, but the right ureter had no connexion with the bladder, and the child was born dead.

it was decided to operate. The dilatation was tapped in the neighborhood of the kidney, and *urine* was discharged to the amount of six and a half pints. Three months after it was tapped a second time, yielding seventy-four ounces. Considerable constitutional disturbance resulted from the operation, but the patient recovered, much improved; and when last seen the abdomen was still subject at times to some distension, which would, however, subside in a great measure without other grave symptoms. By comparing the urine drawn off through the artificial opening and that discharged in the ordinary way, the cyst was found to connect with the urethra. At one time there was some dilatation observed in the neighborhood of the left kidney, which, however, subsided.*

In the Army Medical Museum I find three pathological specimens of double hydronephrosis occurring in the adult. In one the ureters were dilated to the size of the forefinger. No history is given, as the patient was *in articulo mortis* when first seen. The cause was *believed* to be stricture of the urethra, but there was no evidence of such a trouble. Two quarts of urine were present in the cyst. In the second case there was a malformation of the ureters. They united three inches from the bladder, and were distended to the thickness of the finger. No history was given, and it was stated to be "*probably* due to stricture." The third specimen was one presented to the Museum by Dr. C. M. Ford, who has kindly furnished me with the history of his very interesting case.

The patient was Charles Durand, German, aged about forty years, who was admitted into Providence Hospital, Washington, D. C., March 1, 1866. At this time he was very much prostrated, and in an unconscious condition, with a low, muttering delirium; pupils dilated; pulse 100 and feeble; tongue brown and parched; skin cool and of a livid hue; was affected with diarrhœa, passing involuntary watery evacuations. The abdomen was much distended, with general tympanitis, and fluctuation in the hypogastric region. He was of a spare, scorbutic habit, with unhealthy ulcers on the extremities, discharging a sanious fluid.

The case was diagnosticated as one of distended bladder, with retention of urine, and an attempt was made to introduce a catheter, which, it was thought, passed into the bladder, as about one drachm of urine was drawn off, of a light clear color. On the day after admission, Dr. J. F. Thompson, being in consultation with Dr. Ford, it was decided to puncture the bladder through the rectum. At one P.M. the operation was performed, and one gallon and a half of clear, light-colored urine was drawn off. The patient became conscious, and expressed much relief from the operation. Stimulants, nourishment, and anodynes were then freely administered; but during the night the patient was seized with convulsions, and when seen the next morning (March 3) was very feeble, with low, muttering delirium, dying comatose at six P.M. of the same day.

A post-mortem was made eighteen hours after death. The pelves of both kidneys were dilated sufficiently to be capable of containing a pint of fluid, the kidney substance forming a thin disk over a small portion of the cyst, the cortical portion being in greater part obliterated. The ureters were thicker than a man's thumb; the right ureter, just above its entrance into the bladder, was distended into a cyst about the size of a child's head, and contained about a pint of fluid; the left ureter, at a corresponding point, was distended into a cyst about the size of a man's head, and contained about a gallon of fluid. The muscular coat of the bladder was much thickened, and disposed in interlacing bands; the urethra was free from stricture, and the prostate not materially enlarged.

The trocar perforated the large cyst on the left side, and the catheter had somewhat lacerated the membranous portion of the urethra. The difficulty in using the instrument was caused by the bladder being pushed up in the pelvis by the enormous cyst-like distension of the ureters. *

There are two points in connexion with these cases to which I wish specially to direct attention:

First, as to the *cause*. In not one case which I have mentioned in this paper is the presence of an obstruction or stricture satisfactorily and definitively determined by the post-mortem evidences. May not this retention have been due primarily to a spasmodic stricture of the urethra, prolonged sufficiently to produce a dilatation of the bladder with a paralysis of its muscular coat, thereby preventing the amount excreted to be in a proper proportion to that secreted?

Secondly, as regards treatment. Mr. Liston has given us a case in which his patient lived to the age of two and a half years and died of tabes mesenterica; and the success which Dr. Hillier met with in his case, though one of single hydronephrosis, would lead us to believe that his plan of treatment might be practicable where the affection is double, in order to relieve immediate symptoms, if for nothing further.

* Mr. Joseph Thomson has reported a case of hydronephrosis occurring in an adult, which was tapped several times with evident benefit (*Trans. London Path. Society*, vol. 15).

* See Path. Specimen, No. 759, Med. Series, Army Med. Museum.

CASES OF RHEUMATISM AND NEURALGIA CURED BY ELECTRICITY.

By A. D. ROCKWELL, M.D.,

of New York.]

Among the remedial agents comparatively new in its application, is electricity, which, of late years, has been used more or less in the treatment of certain diseases. Yet it is admitted, I suppose, at least by the more conservative portion of the profession, that its application has been too much neglected. As a specialty it has been, and is now, mostly employed by uneducated and designing persons, who know little of the agent used, and still less of the organism which they pretend to treat. This of itself seems to have been sufficient to prejudice many skilful and conscientious physicians against its introduction into general practice; but certainly if it can be proved to be of one-half the value to humanity that some claim for it, every candid medical man will be ready and anxious to give it all the attention it deserves. To be sure we know but little, if any, more of the nature of this subtle fluid now, than when Franklin brought it from above and proved its identity with the lightning of the clouds.

We do, however, know more of its uses, and as medical men it behoves us to use every endeavor to increase this knowledge, so that we may constantly add to our weapons with which to combat sickness and death. In this short article I propose simply to give a few well marked cases of neuralgia and rheumatism successfully treated by electricity; and in this connexion it may be remarked that, aside from the above-named affections, and that other disease for which electricity has long been considered a useful remedy—viz. paralysis—the diseases which seem to be most amenable to its influence are dyspepsia and cholera.

Case I.—E. S. B., aged forty—a real estate broker—

suffered at short intervals during a period of a year and a half, from a most severe cervico-occipital neuralgia. Indeed, he states, "so much did I suffer that, for a considerable portion of my time, I was unable to attend at all to business." Had consulted many physicians, and tried almost every remedy suggested, but with little relief. *September* 5th.—Electricity first applied. *September* 8th.—Second application. *September* 12th.—Patient reported himself as "cured." Received a third application. *September* 28th.—Presented himself again, having had no return of pain until September 26th, when he experienced a slight attack. Fourth application received, since which time there have been no symptoms of the return of the neuralgia.

Case II.—Ann C., aged thirty-three; lumbo-abdominal neuralgia of two years' standing. She suffered most intense pain, periodically, every day or every other day, describing it as shooting from the lower portion of the back, over the abdomen, down to the genitals. Had received treatment in the dispensaries of the city, and also from physicians outside, but acknowledged no relief. Received applications on September 15th, 19th, and 22d. Up to the latter date she had but one of her usual paroxysms of pain, when she suffered comparatively little. *September* 26th.—Fourth application. The neuralgia of her back and abdomen has entirely disappeared, and to-day she complains only of a slight sense of uneasiness along the course of the lower ribs. *October* 3d.—To this date the patient has had no return of her old complaint, and reports herself as entirely relieved.

Case III.—P. K., aged forty-five, a mechanic; for the last eight months has suffered much from frontal neuralgia, occurring periodically, sometimes two and three daily, and, again, three days passing without a return of the attack. The paroxysms of pain generally lasted for about two hours, but occasionally a whole day. In the latter case he does not as usual recover and feel perfectly well before the next attack, but is annoyed by a constant, though slight, vertigo. He describes the neuralgia as being most severe over the forehead, but at times it shoots over all the head. During the month of September, beginning on the 10th, he was treated with electricity on five different occasions, every other day, and up to October 1st, from September 14th, he had had no return of pain.

Case IV.—Mrs. C., aged thirty-five; states that for four weeks previous to her appearance she was attacked with sub-acute articular rheumatism, suffering very considerably in the right shoulder and in both knees. These three joints were also much swollen. *September* 13th.—First application. *September* 17th.—The swelling was considerably reduced and the pain sensibly lessened.—Second application. *September* 20th.—Swelling of the shoulder and knees entirely dissipated, and the patient reported herself as free from pain, stating that for the first time in over a month she had been able to pursue her daily avocation.

Case V.—Ann M., aged forty-five; has been affected with sciatica of such a severe character that for nine months she has not, at any time, been able to do a day's work. She has often been confined to her bed for days, and during an attack of more than ordinary severity, for three weeks. *Wednesday, September* 12th.—First application. The immediate effect was marked. She expressed herself as feeling a sense of general relief. *September* 14th.—Second application. *September* 17th.—Third application. Patient expresses herself as entirely relieved from pain, and for the first time since the first attack has been able to perform a full day's work. *September* 27th.—To this date has had no return of her difficulty.

Case VI.—Mrs. L.; had chronic articular rheumatism, persisting for two years. *September* 17th.—Patient first presented herself for treatment, when her left knee and right shoulder were found considerably swollen. Applications of electricity made *September* 17th, 19th, and 22d, entirely reducing the swelling in both joints. Walking was performed with comparative comfort, and the patient expressed herself as being almost entirely relieved from pain.

In the treatment of the above cases I employed the Faradaic current, placing the negative pole at the feet and applying the positive directly to the part affected, also down the spine and over the vital organs, thus allowing the stream to pass through the whole body. If the results in these applications were more speedy and more satisfactory than others have experienced, it was due, I think, to the thoroughness with which they were made, and to the strength of the current, which was always as great as the patients could bear without positive pain. And in further proof of the beneficial effects of general as well as local electrization, I may say that the patients on whom I employ it almost uniformly speak of a feeling of exhilaration, with increase of appetite and strength.

Original Lectures.

CLINICAL LECTURES

UPON

DISEASES OF THE GENITO-URINARY ORGANS,

DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.

By W. H. VAN BUREN, M.D.,

PROF. OF ANATOMY, ETC.

Lecture III.

(*Continued.*)

Enlargement of the Prostate.

February 28, 1866.

I have now spoken of the symptoms, diagnosis, and pathological anatomy of the enlargement of the prostate which is so common a disease with elderly men, and you recognise that the term *hypertrophy*, by which it is generally designated, is pathologically correct.

Under the head of *prognosis* I must repeat what I have already stated, that the enlargement of the prostate, in itself, is a morbid change of comparatively little importance; but for the intimate relations between this body and the neck of the bladder and the commencement of the urethral canal, in consequence of which its change of shape and increase of size tend to obstruct the free passage of the urine, the disease would attract but little attention. But inasmuch as it does, in the great majority of cases, give rise to serious interruption to the functions of the bladder and kidneys, enlargement of the prostate is to be regarded as a most grave disease, generally producing catarrhal cystitis, leading to the formation of stone in the bladder, and finally terminating in disorganization of the kidneys, and death by coma. In fact, there are few diseases to which man is liable which wear out life more painfully or surely than this, when unrelieved by the resources of art. Let us trace the several steps of the morbid process by which these results are

brought about. I will describe them to you as I have repeatedly witnessed their traces in the dead body, after watching their symptoms during life.

In the first place we have a positive mechanical obstruction, a dam as it were formed around and in front of the outlet of the bladder, by the bulk of the enlarging prostate, which thus constitutes an impediment to the escape of the urine. To overcome this obstacle the muscular fibres of the bladder contract more forcibly upon its contents than they are required to do when the way is clear. After a time, this habitual increased exertion of force leads to two morbid changes in the coats of the bladder: First—Its muscular coat becomes hypertrophied—its bundles of fibres standing out like a prominent network under the mucous membrane; Second—The mucous membrane itself becomes pouched or sacculated in the intervals or meshes of the muscular network.

In the next place, the amount of obstruction increasing, the bladder, from over-distension, becomes enlarged in size, and altered in shape; most generally its base, yielding the most in the process of dilatation, forms a pouch behind the enlarged prostate; at the same time its over-worked muscular coat gradually loses its power of contractility, and the organ fails to empty itself completely, although the patient, conscious of the difficulty, endeavors to assist by voluntary contraction of the muscles of the abdomen.

A knowledge of these morbid changes, which progress slowly and insidiously, affords an explanation of the peculiar mode of passing water which is so characteristic of this disease, and I would advise you always to see your patient perform the act, if possible. He will stand some time waiting and trying, before the stream commences, and then it will be thin and slender, and expelled with less than normal force, running slowly. Presently it will stop; but the patient, conscious that he is not fully relieved, still waits for more to come, and it comes with more or less delay, but by spirts, with an interval of waiting, and you can see by the drawing in of his lower belly, that he has brought his abdominal muscles to the aid of the partially helpless bladder.

Meanwhile, an important change has been for some time going on in the *mucous membrane* of the bladder. A low grade of inflammation commencing around its neck, has been slowly advancing thence over the whole of its internal surface. The increased sensibility thus produced, explains the more frequent calls to urinate, which constitute so early and marked a symptom of the disease; and also the opacity or turbidness of the urine—due to the presence of pus corpuscles. Later in its progress, when the urine from habitual retention has become alkaline, its ammonia, reacting chemically upon these pus corpuscles, produces the peculiar adhesive gelatinous deposit, generally described as "mucus," which has given the name "catarrh" to this condition of the bladder. You can produce this same gelatinous mass by agitating pus from any source in a test tube, with a few drops of liquid ammonia. It is important that you should be aware of this chemical fact, for it is a mistake to attribute this gelatinous material to the mucous membrane of the bladder alone. An altered secretion does take place to some extent from the inflamed mucous membrane of the bladder, but this consists mainly of pus corpuscles and imperfectly formed epithelial cells, and this altered secretion, as Dr. Owen Rees has proved by his experiments, is itself alkaline.* This is another fact to be remembered, for it affords the best explanation of the constant tendency to the formation of phosphatic or white gravel which so commonly is present in these cases of enlarged prostate, and which, if unchecked, goes on until a stone is formed in the bladder. According to Dr. Rees, this is the mode of its formation: The normal acidity of the urine is due to phosphoric acid, an excess of which is necessary to keep the phosphates (of lime and magnesia) in a soluble state; this slight excess of acidity is neutralized by the alkaline secretion from the inflamed mucous membrane, and the result is a precipitation from the urine in the bladder of insoluble phosphates or white gravel, which, by the aid of the tenacious gelatiniform mucus already described, is aggregated into a calculus. The necessary conditions being thus always present in cases of enlarged prostate, it need not surprise you that this disease is so frequently complicated with stone in the bladder.

Finally, the prostatic obstruction at the neck of the bladder and the other causes of vesical inflammation still continuing unrelieved, further changes occur in inevitable sequence. The unrelieved bladder leads to distension and dilatation of the ureters, a morbid condition often seen in the dead body; the pelves of the kidneys suffer in their turn; inflammation travels, by continuity of surface, from the mucous membrane of the bladder along the lining of the altered and weakened ureters, reaches the pelves of the kidneys, and after a time involves the *tubuli uriniferi*, and secreting structure of the kidneys themselves; when the function of these vital organs is arrested, urea is no longer eliminated from the blood; the patient becomes drowsy, then comatose, and finally dies. This is the usual mode of death from enlarged prostate.

From the initial symptoms, due to obstruction to the free escape of the urine by the enlarging prostate to the final death by coma, the several stages of the morbid process I have described to you extend over a period varying from one to ten years. During their progress other phenomena may present themselves—not invariable in their occurrence—such as *hæmorrhage*, and entire stoppage or *retention of urine*. The former is due to congestion of the mucous membrane at the neck of the bladder resulting from obstruction in the circulation through the plexus of veins which surrounds the prostate externally, from the pressure of its increasing bulk. This prostatic plexus of veins receives the blood which traverses the vesical mucous membrane, and it follows of course that obstruction here produces a turgid condition of the mucous membrane at the neck of the bladder, and predisposes to passive hæmorrhage under the pressure of the muscles which compress this part in the act of micturition. Hence the frequency of hæmaturia as a symptom of enlarged prostate. The quantity of blood lost is generally trifling, and it often occurs every time the urine is voided. Sometimes it is very considerable, even filling the bladder to distension, and causing great distress. This vascular congestion of the neck of the bladder, due to obstructed venous circulation, is one of the earliest consequences of enlargement of the prostate, and it gradually merges into the true inflammation which is always present, in a greater or less degree, in this disease, when sufficiently developed to hinder the free escape of the urine. Thus we find pus corpuscles in the urine as an early symptom; and their presence indicated to the eye by slight turbidness, a loss of brightness in this fluid, is confirmed by a microscopical examination of the sediment which it deposits.

* On Calculous Disease and its Consequences, being the Croonian Lectures for 1856, London, 1856, p. 81. He experimented upon a man with congenital extrophy of the bladder, in whom the mucous membrane of this organ was projected externally through the deficient abdominal parietes.

I have thus endeavored to bring before you in a rapid resumé, the successive morbic changes in the bladder, ureter, and kidneys, which result from prostatic obstruction, with the symptoms to which they give rise; and it remains for me to speak of the resources of art by means of which these serious and fatal consequences may be averted. That they may be averted by early recognition of their cause, and timely employment of proper treatment, in the great majority of cases, I have no doubt. In fact, judging from my own experience, there is no disease, in itself incurable, in which there is more to be effected by judicious management, in the prevention of suffering and the prolongation of life, than in this.

I have spoken of enlarged prostate as an incurable disease, and it is better that I should confess to you at once, that our science has as yet discovered no remedy by which senile hypertrophy can be cured, nor even its progress arrested. If I mention conium, iodide and bromide of potassium, the Kreutznach mineral waters of Germany—which contain both of these salts of potash—iodine suppositories in the rectum, the various preparations of mercury, muriate of ammonia, pressure by dilatable instruments in the urethra, and finally the use of cutting or crushing instruments, all of which remedies have had their advocates, I am compelled to tell you that experience has taught us that no practical results of value have followed their use. The judicious enforcement of hygienic precautions in regard to diet, clothing, and exposure to cold, especially of the lower limbs, is of more importance than any of these remedies. I may remark that I have seen bad consequences follow the use of the mineral waters of Saratoga and Sharon.

But if we are powerless in regard to the cure of the enlargement of the prostate, we have most valuable means at our command by which its damaging consequences may be prevented. These are, 1st. To convince the patient that he is losing, or has already lost, the power of emptying his bladder in the natural way. 2d. To demonstrate to him, by the employment of a judiciously selected catheter, that art can effectually replace the failing powers of nature; and 3d. To teach him, carefully and patiently, to employ the instrument for himself.

I have here stated succinctly the principles of treatment which are to guide you in the management of a case of senile enlargement of the prostate; the remedies adapted to particular symptoms will be mentioned hereafter. My object in putting the subject of treatment before you in these terms is to impress upon you, as forcibly as possible, these cardinal facts, viz. 1st. That the disease in question threatens life by the interruption of a most important function—the excretion of urine. 2d. That the main object of treatment is to provide for the regular performance of this function. 3d. That the use of the catheter is the mode by which this object is to be accomplished. I have a few remarks to make concerning each of the three heads of treatment. In the first place, do not fail to examine thoroughly, by the rectum, every case of obstruction in the urinary function occurring in an elderly man. The earlier you can recognise prostatic enlagement, the more good you will be able to effect by your treatment. The disease is insidious in its approaches, and I have reason to believe is often overlooked.

Again, the subjects of this disease will be generally your seniors in years, and you will often find them fixed in their opinions, "set in their ways" as the phrase is, and difficult to manage. They are not unfrequently self-willed, hard-headed, and obstinate; sometimes childish. To meet this difficulty, you must make yourselves thoroughly masters of your business, and use your knowledge patiently, earnestly, and with all the tact you possess. It is not an easy thing to convince an old man that he has lost the power of passing his water, and that it cannot be restored by swallowing drugs; and it will be necessary to set before him, in the clearest terms, all the serious consequences which will follow if he neglects the proper means of relief. There is a natural repugnance in most men, especially if advanced in life, to submit to the use of the catheter, and you should neglect no opportunities of acquiring practical familiarity in its employment, bearing always in mind that the great secret of success is to make use of extreme gentleness in your manipulations.

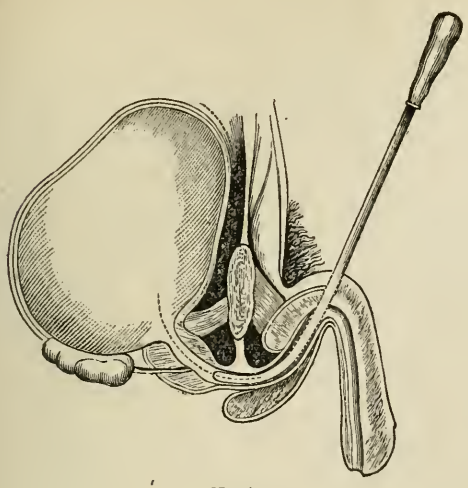
One of the best modes of acquiring the confidence of a patient suffering with symptoms of enlarged prostate is to ask him to let you see him make water, and when he has completed the act, ask him to stand up against the wall, and then yourself introduce gently and slowly a well oiled catheter, such as this I now show you, into his bladder. If you get any urine, and you generally will do so, for the chances are that the bladder has not emptied itself completely, you at once have demonstrated to him that he has failed to relieve himself, and that your art has accomplished that which nature was unable to accomplish. This catheter is a soft, flexible French instrument, with a conical extremity which terminates in a little olive-shaped bulb. It is passed without any wire or stilet, and, in my experience, is less apt to give pain, and more certain to find its way into the bladder, under these circumstances, than any other form of the instrument; it requires less skill to use it successfully, and is less likely to draw blood or do harm in any way. It is also the best form of catheter for the patient to use for himself when he first begins to practise the introduction of the instrument, and at first it is desirable to select one of rather small size, such as Nos. 5, 6, or 7 of the ordinary scale.

When you have acquired the confidence of your patient, and become more familiar with the peculiarities of his urethra by the repeated use of the instrument and by careful rectal examination, you may find that a catheter of a different sort—one with a stilet, or even a silver instrument—will suit the case better and pass more readily. It is sometimes necessary to employ an instrument with a fixed curve at first, the flexible catheter failing to pass, and this leads me to speak of the *normal curve of the fixed portion of the urethra, and of the changes which are produced in this curve by enlargement of the prostate.*

The urethral canal, from its commencement at the neck of the bladder to the point where it unites with the corpus cavernosum to form the body of the penis, is held in a fixed relation to the arch of the pubes and its symphysis by three ligaments, with which you are already familiar; anterior to this point it forms a part of the body of the penis, and follows the movements of that organ. These three ligaments, which are represented in diagram No. 1, are:—1st, *the suspensory ligament of the penis*, which extends from the median line of the symphysis in front to the centre of the corpus cavernosum, just anterior to the junction of its crura; 2d, *the triangular ligament of the urethra*, which is traversed by this canal about an inch below the inferior margin of the symphysis, and which holds it immovably fixed at this point; and 3d, the *pubo-prostatic* or *anterior true ligaments of the bladder*, which extend, one on each side of the median line, from the posterior or deep surface of the symphysis, backwards and downwards, to the capsule surrounding the prostate, into which they are inserted.

By these firm attachments the curve of the urethra

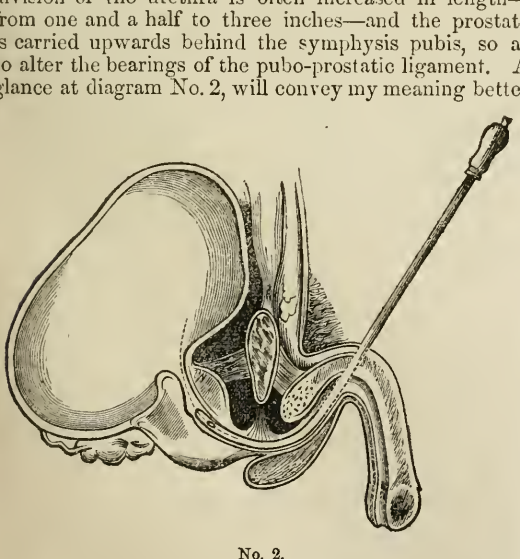
is maintained in a fixed relation to the symphysis of the pubes, a relation which is unchangeable except by



No. 1.

disease, or injury to the parts. By taking its centre from the surface of a vertical section through the symphysis the mathematical elements of this curve can be readily determined; it constitutes about three-tenths of a circle three inches and a quarter in diameter. Here then we have a positive rule by which the curve of the catheter is to be adapted to the normal urethra.

But, as I have said, this normal curve becomes more or less changed when the parts surrounding the canal are altered by disease, and there is no disease which produces this change of curve so frequently and constantly as enlargement of the prostate. The prostatic division of the urethra is often increased in length—from one and a half to three inches—and the prostate is carried upwards behind the symphysis pubis, so as to alter the bearings of the pubo-prostatic ligament. A glance at diagram No. 2, will convey my meaning better



No. 2.

than I can explain it. At the same time other changes in the shape of the prostate still further modify the normal curve, most notably that central projection of its base into the cavity of the bladder to which Sir Everard Home gave the designation of "the third lobe of the prostate." This is a very common variety of enlargement, and one which offers the greatest obstacle to the escape of urine from the bladder, and at the same time constitutes the greatest difficulty in the introduction of the catheter. This "third lobe" is fairly represented in the diagram, which is intended to show a vertical section of an enlarged prostate, with the bladder and urethra.

Now, how does this knowledge assist us in performing the operation of catheterization in a case of enlarged prostate? In the first place, it teaches us to give to the stilet or silver catheter a somewhat larger curve than that which we usually employ, to adapt it better to the increased curve of the urethra; secondly, to prolong this curve scrupulously to the very extremity of the instrument, in order that it may readily ride over the "third lobe" and not be arrested by this projection; and thirdly, to increase the length of the whole instrument, inasmuch as the cavity of the bladder lies further from the surface where the prostate is enlarged, and a longer instrument is required to reach it. This silver catheter which I used upon the patient who is the subject of these remarks presents all these features; its curved portion is almost a semicircle, the diameter of which exceeds four inches, and the last inch of the curve, at its beak, is, if anything, even a little more curved. This last feature is a point of great importance, and one in which instrument-makers generally fail; if the instrument is not well made in this respect, its beak may be arrested by the "third lobe," but if sufficiently curved you will very rarely fail in introducing it.

I have now, gentlemen, exhausted my time, and, I fear, your patience, and yet I am conscious of leaving a great deal unsaid on this interesting subject. I should like to speak of the treatment of hæmorrhage, and of the sudden attacks of retention, in one of which attacks you will be most likely to encounter for the first time most of your cases of enlarged prostate. I should like also to speak to you of the treatment of catarrh of the bladder—which so often complicates prostatic obstruction, and which my experience has taught me is much more certainly relieved by medicated injections than by pareira brava, or buchu, or any of the terebinthinate remedies so commonly employed; of abscess, of sacculated bladder, and of stone—all of which belong to this subject. But I must content myself with the summary of its more essential features which I have endeavored to lay before you, and conclude by assuring you that there is no branch of surgery which will better repay your close study, by conferring upon you the power of relieving pain and prolonging valuable lives, than that which has occupied us to-day.

Female Doctors.—A young woman in Paris having honorably passed two examinations in mixed sciences, has been authorized by the Minister of Public Instruction to go through a course of medicine at Algiers, as her medical attendance might be of great service to the Arab population, and through her the boon of medical science might penetrate the tent and harem of the Arab, where no male doctor would ever be admitted. Lately another lady has passed her examination as midwife, and has obtained permission to offer herself as a candidate for examination at Paris for the degree of Doctor of Medicine.

Uee of Tobacco by Children.—In Fall River, Mass, the children in the public schools use tobacco, and become intoxicated to such an extent that the Superintendent of Schools has written a public letter on the subject. Will not the enforcement of the stringent State liquor law remedy the evil?

The third case of Painless Cæsarean Section, successful, under Dr. Richardson's method of local anæsthesia, is announced in an English journal.

Reports of Hospitals.

LONG ISLAND COLLEGE HOSPITAL.

SESSION OF 1866.

A SERIES OF CASES ILLUSTRATING CARDIAC DISEASES, SELECTED FROM PROFESSOR FLINT'S CLINICS.

[Reported by O. C. SPARROW, M.D., Clinical Assistant to the Chair of Practical Medicine and Pathology.]

FUNCTIONAL DISORDER OF THE HEART—ANÆMIA.

CASE II.—*Enlargement of the Heart by Predominant Hypertrophy; no Valvular Lesions. Intercostal Neuralgia.*

History.—John Mullen, æt. 48 years, a shoemaker. He states that during the past ten or twelve years he has occasionally experienced dyspnœa and palpitation after any considerable exertion. These symptoms, however, have never been urgent, and he enjoyed a fair measure of health till about five weeks ago. Since then he has suffered a persistent concentrated pain in his side, at times so severe as to prevent him from following his occupation. This pain was supposed by him to denote pleurisy. He also complains of a sense of muscular weakness, debility, and loss of appetite. Never had rheumatism nor dropsy.

Present Symptoms.—His aspect is notably anæmic, and there is a loud "venous hum" ("bruit de diable") in the superficial veins of the neck. Pulse somewhat accelerated, weak, and compressible. Respirations normal. During his illness he has had a dry, hacking cough. The skin is moist and cool. Bowels regular.

Physical Examination.—The pulmonary organs seem normal. He presents the diagnostic test of intercostal neuralgia, viz. marked tenderness on pressure over isolated points in the spinal and sternal regions.

Heart.—The præcordia presents an abnormal prominence and heaving motion. When the hand is applied over this region, a sense of powerful muscular contraction of the organ is appreciated. The impulse of the apex beat is removed from its normal situation downwards and outwards. It is both seen and felt in the sixth intercostal space, nearly two inches outside a vertical line passing through the nipple. It is prolonged and powerful. Another and still stronger impulse is in the fifth intercostal space, nearer the nipple. No impulse in the epigastrium.

The area of superficial cardiac dulness is much enlarged. The left border of the heart falls an inch and a half outside the linea mammalis. The first sound is prolonged and booming, and the valvular quality is nearly lost in the element of impulsion. The aortic and pulmonic second sounds are both exaggerated. A careful search reveals the presence of no cardiac murmurs. The action of the heart is regular.

℞. Ferri et quiniæ citratis, ʒ ij.
Aquæ puræ, fl. ℥ vj. M.

Sig. A dessert-spoonful three times a day.

Comments.—This case furnishes an example of enlargement of the heart by predominant hypertrophy, without valvular lesions. It is interesting as illustrating the fact, that, so long as hypertrophy continues to predominate over dilatation, even a considerable degree of enlargement is not inconsistent with health and comfort. The history presents no urgent symptoms referable to the heart. Indeed, he was not aware that this organ was in any respect the subject of disease.

The most erroneous notions of the pathology of hypertrophy have formerly prevailed among practitioners of medicine, leading to false and injurious principles of treatment, with a view to check the muscular growth of the heart. For this object, large abstractions of blood, and other lowering remedies, have been much employed. They have, apparently, failed to appreciate its real significance, and have ascribed to it the evils which were incident to other associated morbid conditions, evils which the hypertrophy tended directly to obviate. A more just appreciation of the pathological relations of hypertrophy of the heart constitutes one of the most striking instances of the progress of modern medicine.

It is developed under exigencies requiring any sustained exertion of augmented power; and then it cannot be regarded as a pathological evil, but rather, by imparting to the heart increased power and efficiency under its augmented task, it involves a beneficent purpose, a principle of conservation. It is only a physiological expression of that general law, in accordance with which each organ of the body acquires, by an intrinsic tendency, a special adaptedness to the demands of the economy. It is a mere analogue of the powerful muscles of the arm, for example, which have become similarly developed under the excitation of prolonged muscular exertion. It is generally associated with dilatation, and its conservatism is best exemplified in counteracting the disastrous tendencies of the latter. So long as it continues to predominate, the evil effects of dilatation will be thwarted. It thus becomes the safeguard of the organ. Hypertrophy has doubtless secured years of comfort and happiness to thousands, who otherwise would have fallen early victims to organic cardiac disease. In accordance with these views that monstrous growth, for which analogy has suggested the name "cor bovinum," no longer stands as a simple expression of a morbid process, but it displays as well the most striking evidences of a beneficent conservative provision.

Differential Diagnosis.—The discrimination of hypertrophy of the heart involves attention to those points which denote augmented muscular power of the organ. They relate especially to the characters of the first sound. In proportion as it is loud, prolonged, and booming in quality, the predominance of hypertrophy may be inferred. Other characters relate to the power of impulsion. In proportion as this is marked, communicating to the ear or hand applied to the præcordia a sense of powerful muscular contraction, it indicates hypertrophy. The prominence and forcible heaving motion of the præcordia possess, also, a degree of diagnostic significance.

These are the chief points which, taken in connexion with the other physical signs of enlargement, denote predominant hypertrophy. In hydropericardium the impulse of the apex beat is either feeble or suppressed. It is raised and carried to the left, instead of lowered. The amount of dulness is greater than in enlargement by hypertrophy or dilatation, approaching at times to flatness. The area of dulness, when the amount of effusion is large, may extend above the normal level of the base of the heart.

Treatment.—Hypertrophy, per se, as might be inferred, rarely presents any therapeutical indications. When measures of treatment seem to be required, the indications will generally be found to grow out of some associated morbid affection, and must be met by appropriate remedies suited to the particular nature of the case. These cannot be indicated here.

CASE III.—*Chronic Bronchitis, Asthma, Emphysema, and Enlargement of the Heart: No Valvular Lesions.*

History.—Tim. Corwin, æt. 50 years, a laborer. He states that he has a cough and expectoration, the commencement of which he dates back ten or twelve years. The sputa were for a time muco-serous (Bron-

chorrhœa). They are at present more purulent in character. During this time he has been subject to occasional paroxysms of asthma, with more or less constant dyspnœa. These symptoms have progressively increased, until latterly he has been obliged to give up work. The superficial veins of the body are distended, and the surface, especially the face and extremities, presents a somewhat dark livid color, owing to capillary congestion. The skin is cool. Pulse 80. Respirations slow and labored. Appetite and digestion normal.

PHYSICAL EXAMINATION.

Inspection.—The chest is symmetrical, but presents a rounded fulness and prominence at the upper and anterior portion. There is some anterior curvature of the spine and projection of the lower angles of the scapula. The sternum rises and falls with the ribs in the act of respiration, and some depression is noticed of the soft parts above the clavicles in inspiration.

Lungs.—There is a clear percussion-resonance over the lungs. Over the superior lobe of the left lung it is notably vesiculo-tympanitic in quality, and relatively higher in pitch and more intense than on the right side. The respiratory murmur is vesicular, but feeble on both sides—more so on the left than on the right side. "Deferred" inspiration. Expiratory murmur prolonged, but lower in pitch than the inspiratory murmur. Sibilant and sonorous râles are heard over all parts of the chest. Voice and whisper normal.

Heart.—Over the superficial cardiac space there is a vesicular percussion-resonance, and, by auscultating, a feeble vesicular murmur is also evolved, due to the encroachment of the emphysematous lung. By practising deep percussion the area of cardiac dulness is found to be considerably enlarged, the left border of the heart falling about one inch outside the linea mammalis.

The apex beat is in the sixth intercostal space, an inch and a half outside the nipple. The impulse is strong, prolonged, and powerful, and there is a visible heaving motion of the præcordia during the systolic contractions of the organ. A feeble impulse is also visible in the fifth intercostal space, nearer to the nipple. A strong impulse is both seen and felt in the epigastrium, beneath and a little to the right of the xiphoid cartilage. The heart sounds are pure. The impulsion element of the first sound is abnormally intense, communicating to the ear a sense of powerful muscular action. Both the aortic and pulmonic second sounds have an exaggerated intensity, and the pulmonic is as loud, or louder, than the aortic.

℞. Potassii iodidi, ʒ ij.
Aquæ, fl. ℥ iij. M.

Sig. Teaspoonful three times a day.

Comments.—The points which have been developed in the examination of this case present a chain of morbid sequences, which it will be both interesting and instructive to trace. This entire group of diseases, though primarily affecting different organs and anatomical systems, yet have an intimate relationship; and it will be seen that they have mutually tended to produce and perpetuate each other.

In the vast majority of cases, enlargement of the heart implies some impediment to the circulation; seated, it may be, either within the central organ itself, or more remotely, in any part of the systemic or pulmonic circuit. In this patient the lesion seemed to affect the pulmonic circulation. He presented the physical signs and symptoms of pulmonary emphysema. And clinical observation has abundantly shown that this affection may lead to enlargement of the heart.

The manner in which this result may be induced becomes intelligible in view of the physical condition of the lung involved in this affection. The permanent dilatation of the air-vesicles of the emphysematous lung, by causing pressure on the terminal branches of the pulmonary vessels, involves a degree of obstruction to the circulation. The function of hæmatosis thereby becomes impaired; and this also, by preventing the perfect oxygenation of the blood, contributes to increase the obstruction. Hence arise, as the direct effects, active congestion of the lungs, dyspnœa, pulmonary œdema, and sometimes extravasation of blood (pulmonary apoplexy).

Tracing the morbid effects still further, there follows over-accumulation of blood in the right ventricle of the heart, giving rise by mechanical pressure to dilatation or hypertrophy, or, as more frequently happens, both combined. The right ventricle being primarily involved, the effect is propagated successively to the right auricle, left ventricle, and left auricle, until finally the entire organ becomes permanently enlarged.

It should, however, be remarked that pulmonary emphysema not unfrequently occurs in connexion with chronic bronchitis and cardiac valvular lesions, especially mitral obstructive lesions, when it is a secondary affection. The valvular lesions, by inducing pulmonary congestion, favor the development of bronchitis, and subsequently emphysema, through the intervention of the former. But emphysema, however produced, whether as a primary or secondary affection, by involving an impediment to the pulmonic circulation, in the way already explained, must invariably exert a direct and powerful influence upon the heart in proportion to the amount of obstruction which it involves.

Whether, in this case, the bronchitis and emphysema constituted the original cause in determining the enlargement of the heart, or whether there existed other determining causes with which the bronchitis and emphysema, being subsequently developed as secondary affections, have only coöperated, we may not be able to decide with positiveness. In the absence, however, of valvular lesions, or any other appreciable causation, the conclusion is rendered probable that the bronchitis and emphysema were in this case the starting-point, proceeding and determining the enlargement of the heart.

We should expect, reasoning à priori, to find in this case the right ventricle especially involved in the enlargement. And that it is so, we have proof in the strong, visible impulse noted in the epigastrium. It should be remembered, however, that this sign is only valuable when taken in connexion with other physical signs of enlargement. For a cardiac impulse in the epigastrium may denote only a dislocation of the organ incident to a variety of diseases, *e. g.* Pneumothorax, Pneumo-hydrothorax, Pleurisy, Emphysema, etc.

It may be remarked generally, that the pathological effects of organic lesions of the right side of the heart are usually manifested in the pulmonary organs; while those effects which are manifested in more remote parts of the body are most apt to be caused by lesions affecting, primarily, the left side of the heart.

In this case hypertrophy still predominated over dilatation.

The iodide of potassium was prescribed, with reference to the chronic bronchitis, clinical experience having proved that, in a certain proportion of cases, this remedy exerts a marked curative influence in that affection.

CASE V.—*Acute Articular Rheumatism involving Endocarditis.*

History.—John Park, æt. 21 years, a laborer. He states that twelve years ago he had an attack of acuto articular rheumatism; was confined to the house for

several weeks. The disease first manifested itself in the ankle-joints. Subsequently the knees, hips, elbows, and shoulders became successively involved. During the winter of 1864 he experienced a second attack, invading the larger joints of the body. Was admitted to hospital March 20th, while suffering from a recurrence of the same complaint.

Present Symptoms.—The joints of the wrists, knees, and elbows are red, swollen, and exquisitely painful. There is considerable febrile movement, thirst, loss of appetite. Pulse somewhat accelerated. Skin sometimes hot and dry: at other times moist and emitting a sour odor. Bowels costive. Urine high-colored, scanty, and loaded with an abundant lateritious deposit. Since his admission a feeble mitral regurgitant murmur has appeared, heard near the apex of the heart. It is not propagated laterally. Percussion shows the heart to be normal as regards its size, form, and situation. No exocardial murmur. He complains of no pain or soreness referred to the præcordia.

℞. Sodæ et potassæ tartratis, ʒ j.

Sig. To be repeated every three hours until the urine has acquired an alkaline reaction.

Also as a lotion, to be applied externally, the following:

℞. Sodæ carb., ℥ is.
Tinct. Opii, fl. ʒ iv.
Glycerine, fl. ℥ ij.
Aquæ font. fl. ℥ xij. M.

Comments.—The history of this case illustrates the usual course and complications of this affection; its tendency, while manifesting itself in the larger joints of the body, to invade also other serous or fibro-serous tissues, and especially the lining and investing membranes of the heart.

Our knowledge of even the existence of endocarditis is among the recent developments of pathology, and has been mainly acquired in connexion with the study of acute articular rheumatism. We are chiefly indebted, for first pointing out its pathological character and laws, to the distinguished Bouillaud, of France, whose eminent researches, by means of physical exploration, mark an era in the progress of diagnosis and of practical knowledge of diseases of the heart.

The older writers speak of "Rheumatism of the Heart," and although this term is no longer retained in our present nosological classifications of disease, yet it is not altogether destitute of propriety. For doubtless endocarditis and pericarditis, when developed during the progress of acute rheumatism, are to be included among the local manifestations of this general disease. Indeed, all its local manifestations are essentially inflammatory, though accompanied in certain situations by different phenomena and events from ordinary inflammation.

Pericarditis rarely occurs without coëxisting endocarditis; but the reverse does not hold true. Clinical observation appears to show that the former is developed incidentally to articular rheumatism, in the proportion of about one case to six; the latter in a larger proportion. They are considered as complications only for the sake of convenience.

This tendency of articular rheumatism to invade the heart has opened a new field for physical exploration. The inflammation in endocarditis not unfrequently assumes a sub-acute grade, giving rise to no very distinctive subjective symptoms. Pain referred to the præcordia is rarely a prominent symptom, and may be altogether wanting. Hence, physical signs furnish our only reliable means of diagnosis. The affection presents the same anatomical characters as other serous inflammations. It is attended by the exudation of coagulable lymph, especially upon the curtains and segments of the valves; since a certain amount of fibrous tissue enters into their structure, for which the affection seems to possess a sort of elective affinity. The effects of the inflammation are sometimes limited to them.

These exudative deposits become the nuclei for the further deposition of fibrin from the blood; and this process is favored by the great abundance of fibrin which the blood is known to contain in acute rheumatism.

The inflammation may lead to ulcerations, perforations, adhesions, or other structural changes, and thus are produced those valvular lesions, which, by obstructing or otherwise disturbing the blood currents in their passage through the orifices of the heart, give rise to cardiac murmurs. An organic endocardial murmur almost invariably implies the existence of a valvular lesion, which has resulted from endocarditis.

It should, however, be borne in mind that we cannot in every case infer *present* endocarditis from the existence of an endocardial murmur, since the valvular lesion which gives rise to the murmur may be the result of a prior inflammation which has long since ceased. For example, if, during the progress of acute rheumatism, on listening to the organ for the first time we should discover a murmur, and especially if it should appear that the patient had been the subject of former rheumatic attacks, the murmur, under these circumstances, would afford no evidence of present endocarditis. For the murmur to possess diagnostic value, it must be known to have been developed during the progress of the existing disease. Præcordial distress and irregular or excessive action of the heart, if coëxisting, would also tend to confirm the diagnosis.

It is worthy of remark, by way of caution, that an aortic direct murmur is not unfrequently observed in the case of anæmic females while affected with articular rheumatism, the murmur disappearing after recovery. It probably does not denote any valvular lesion, but is caused by the condition of the blood, and hence falls into the class of inorganic or hæmic murmurs.

Endocarditis probably never involves immediate danger to life. It is, nevertheless, an important affection, and one always to be dreaded. By producing valvular lesions, it thus lays the foundation for all the remote, grave, and perhaps fatal results of organic cardiac disease.

The fœtus, during intra-uterine life, may be the subject of endocarditis; and it is a curious observation that the affection, when thus congenital, is generally limited to the right side of the heart, while the reverse is true when occurring after birth. Indeed, so extremely infrequent are lesions of the tricuspid or pulmonic semilunar valves, occurring after birth, that as a rule these valves may almost be disregarded in making a diagnosis.

These observations are interesting as throwing some light upon the causation of the disease, and at the same time as affording a rational indication of treatment. They render it at least highly probable that the affection depends upon some morbid principle, which is developed in the blood during its passage through the lungs, and again destroyed or eliminated in the systemic circulation. This view is confirmed by the original experiments of Dr. Richardson, of London. He injected lactic acid into the peritoneal cavities of inferior animals, which resulted in the production of endocarditis, involving especially the curtains and segments of the valves, not of the left but of the right side of the heart.

The results of these experiments accord with the theoretical views of Fuller respecting the pathological condition of the blood, which gives rise to articular rheuma-

tism, and render it probable that the materies morbi of all the local manifestations of acute rheumatism is lactic acid, produced in the lungs. He claims that by employing means to neutralize or eliminate this acid from the blood, the liability to endocarditis becomes greatly lessened; and these views appear to be sustained by the results of experience.

Progress of Medical Science.

The Physiological Properties and Therapeutic Action of Veratrum Viride.—Dr. L. C. Butler, of Essex, Vt., in a paper entitled as above, read before the Vermont Medical Society, at the last annual meeting, thus sums up the knowledge gained concerning veratrum viride:

(1.) The tincture made by macerating eight ounces of the fresh-dried root in one pint of alcohol for a week, and Thayer's fluid extract, are the most reliable and preferable preparations for its administration. (2) The dose of the tincture is five to ten drops, of the extract two to four drops, varied according to the urgency of the symptoms, the age and strength of the patient, and repeated at intervals of one to four hours. (3.) It is not necessary to push the remedy so far as to produce emesis or catharsis. Its full effects are usually reached without either of these results. (4.) Veratrum is essentially an arterial and nervous sedative, whether employed by itself or in combination with other agents. (5.) It is as safe a remedy as any we possess, only requiring the ordinary degree of caution in its employment, and, like the majority of our remedial agents, liable to fail in special cases of peculiar idiosyncrasy or of wrong diagnosis. (6.) It is equally applicable in the treatment of low forms of fever and those of an inflammatory type; in the former it is to be preferred to the lancet, and relieves without depriving the patient of any portion of the vital fluid, while in the latter, the better its remedial properties are understood, the less frequently will the lancet be employed.

Guaco as a Remedy for Cholera.—A series of observations on the treatment of cholera by "guaco," during the worst period of the epidemic at Amiens, France, is presented by Dr. Bourneville, as giving the following results: 1. Confirmed cholera, refractory to ordinary treatment, 10 cases, 6 cures, 4 deaths; 2. Violent cholerine, 4 cases, 4 cures; 3. Choleriform diarrhœa, 4 cases, 4 cures. Mutis, the learned *quinologist*, brought this plant (guaco) to our knowledge, and considered its discovery one of his most valuable scientific conquests. It is unnecessary to say that, concurrently with the cinchonas, guaco was used by the South American Indians long before our *savans* discovered it. For the Indians the bark was the specific for fever; the guaco for poisoned wounds and the like. They used internally the juice of the plant, and externally its powdered leaves. It is but recently that Dr. Poscal Tardieu and friends made experiments upon guaco prepared in the forms of wine, elixir, and infusion, and found it possessed of valuable properties, arousing to action the entire digestive apparatus.

The *Abeille Médicale*, from which we condense these facts, boasts of the exactness with which the observations were made and recorded, but does not give any details.

Ovarian Pregnancy, with Delivery of the Fœtus per Anum—Perfect Recovery.—A case communicated to the *Gesellschaft für Heilkunde* by Dr. Julius Beer, of Berlin. The wife of a merchant, thirty years old, of Berlin, was, as primipara, in 1856, safely delivered. In November, 1862, she felt somewhat unwell, and had severe pain in the left hypogastric region, which showed an egg-shaped swelling. It was treated as wind colic, but the condition became worse. The catamenia ceased for nine weeks, but pregnancy was not made out. The patient was then seen by Dr. Hildebrandt, who made the diagnosis of a pregnant (?) uterus (uterus contentum), without, however, being able to give a decided solution of the question. Ordered absolute rest in the recumbent posture, oatmeal poultice for twenty days on the tumor in the ovarial region. The patient was also ordered, by a *sage femme*, to take a cold sit bath twice a day, with a view to the removal of hæmorrhoids. Naturally enough Madame G. became very sick, and Dr. Hildebrandt found, on exploration, excessive painfulness of the swelling, for the relief of which many leeches were applied. At the next consultation, an entirely normal pregnancy was diagnosticated by one physician, and denied by the other. In the seventh month of pregnancy the patient took a great many laxatives on account of constipation of the bowels. In the meantime the writer was called in, who examined the uterus very closely, and gave the opinion that the woman was not pregnant, but that an abortion had taken place some time before. The tumor in the left hypogastrium I did not find. The woman, with whom I was previously entirely unacquainted, informed me that she had suddenly got very thin, and hence I formed the idea that perhaps there had been a mole (mola), and I ordered something for the relief of the abdominal pain. As I afterwards learned from a relative of the patient, on the 2d of January, 1864, after an almost colliquative diarrhœa, with very great pain, two skull-bones, as symmetrical as oyster-shells, the parietal bones of a fœtus, with other very fœtid parts, were passed per anum.

This is a fact, as substantiated by actual sight, for I know that there was a case where it was possibly simulation, in order to make the subject of it interesting. (The writer here speaks of similar cases.) Pathological anatomy has shown that in such cases a sac is formed, which is united with a loop of intestine, whereupon this intermediate partition-wall is broken through to allow the bones to pass. Whether all the parts of the child followed those which have been enumerated in this case is not certain. It is probable, however, since the patient Frau G. remains well and without pain.

Dr. Hildebrandt describes the same case as follows: "Frau G. came under my treatment December 30, 1863. *Status præsens.*—Intumescentia uteri; left ovarial region very painful and somewhat swollen; shooting pains in left hip; suppression of menses for more than two months; slight fever. *Course.*—Pain in side and hip, increased at times to unbearableness; sleepless nights. Jan. 13.—Consultation with Geh. Rath. M., who believed there was a normal pregnancy between the third and fourth months. In February the pain abated, and on the 22d of February a hæmorrhage from the genitals occurred, which lasted some days. On the 1st of December patient was again under treatment, with a diarrhœa which had existed for almost two months, with intermitting hardness of the bowels, inducing a permanent sense of pressure. The tumor in the side had disappeared. *Uterus normal. Menses for some weeks regular.* Passage of the ossa parietalia on the 28th of December. Patient now well."—*Deutsche Klinik*, No. 9, 1866.

The Internal Use of Chloroform.—Dr. Snowden, of Franklin, Pa., writes in regard to the probable irritant effects of large doses of chloroform: "I ordered for a

patient laboring under delirium tremens, after the usual opium treatment had been pushed as far as was prudent, drachm-doses every twenty minutes, in a glass of ice-water, until sleep was induced. The remedy had the desired effect after four doses were given. When informed that the chloroform had been given in its purity, I inquired of my patient if he had any soreness of the throat or stomach, and was assured that he felt perfectly well, except that he was weak. Also, some time since, I gave drachm-doses, in its purity, to a child, ten years old, with convulsions, from which it had been suffering for four hours, with the effect of relaxing the spasm after two doses had been given at intervals of ten minutes, without causing any irritation of the throat beyond a slight erythema. I may add that the child slept soundly, but naturally, for three or four hours, and awoke bright and playful."—*Med. and Surg. Reporter.*

Production of the Sexes at Will.—The following is a very brief abstract, condensed from the *American Journal of Science and Arts*, for July, 1864, and January, 1865, of an important memoir of M. Thuny, of Geneva, and of an account of some experiments of MM. Coste and Gerbe, on the Law of the Sexes. The original memoir of M. Thuny was published in the *Bibliothèque Universelle*, in 1863.

This investigator was first led to his conclusions by the following well known facts: 1st. The fundamental or morphological identity of the sexes. From this he concludes that the difference of the sexes is due to slight differences in the process of development of the ovum in its earliest stages. 2d. That in plants (those which are unisexual), the character of the sex may be controlled by the management of external agents. 3d. That, according to Huber, the ova of the Bees, if fecundated early, produce workers (females), whilst if fecundation be retarded until the twenty-second day, all the eggs deposited produce males.

For these reasons M. Thuny concludes that the *sex is determined* previous to fecundation, or rather *by the maturity of the ovum at the moment of fecundation.*

If no fecundation takes place, the development is arrested at a certain stage, and the ovum perishes: but if fecundation occurs, there is a new accession to life's force, which suffices to carry it through all stages of embryonic and extra-uterine life.

Now, according to M. Thuny, during the earlier stages of the ante-fecundation history of the ovum, the sex is female: but, if the developement continues without fecundation, it becomes male. By impregnation the sex is fixed for ever.

In uniparous mammalia the ovum leaves the ovary at the beginning of each rutting period in a very immature condition, and passes slowly through the fallopian tubes, the u erus, and finally, if unfecundated, is discharged.

Now during the whole of this slow passage, the ovum is maturing. If, therefore, fecundation takes place early in the *period of heat*, the sex of the embryo will be female. If later it will be male. * * * Now, if M. Thuny is right, fecundation *at the commencement of the menstrual period will produce females*, and *later, will produce males.* He does not indicate the exact turning point.

Anxious to subject his theory to the list of disinterested experiments, M. Thuny gave minute directions to M. Cornaz, an intelligent Swiss stock-raiser, and son of the former President of the Swiss Agricultural Society. These directions were followed in twenty-nine cases, and *in every case, without exception, the desired sex was produced.* First, in order to propagate the breed of a very fine Durham bull, M. Cornaz wished to get heifers; he made twenty-two experiments and got heifers every time. He then wished to get a few bulls of half breed to sell to his neighbors; he made seven experiments and got bulls every time.

In the case of multiparous mammalia and birds, the test is much more difficult, and the results contradictory. M. Thuny's observations lead him to think that in the domestic hen, "the last eggs laid are the cocks of the clutch." He accounts for this by supposing that in each generative period *several ova commence to operate together*, but are *separated* from the ovary *successively*, and therefore at the moment of fecundation (which takes place in the oviduct), the last separated are the most mature. MM. Coste and Gerbe, on the contrary, find that when several ova are fecundated by *one* copulative act, the first laid eggs produce cocks, and the last, hens. These results are in accordance with certain observations which are as old as Aristotle. This great naturalist observed that pigeons laid but two eggs, one of which produced a male, and the other, a female. The celebrated physiologist, Flourens, confirms these results of Aristotle, and in addition proves that the egg first laid produced the male, and the other the female. These observations of Coste and Gerbe, and of Flourens and Aristotle, certainly seem to controvert the *observations* of Thuny on hens; but they may be accounted for on his *theory* by supposing that during a single generative period, several ova *commence to develop successively, and separate successively at the same stage of development*, and continue their developement in the oviduct previous to fecundation. Being thus regularly arranged in the oviduct in the order of their ages, and therefore of their maturity, if all are fecundated by one copulative act, the most mature, or the males, would be laid first. Embryologists must settle the important questions we have here started. If definitively settled, then it would seem that experiments on hens are best adapted to test M. Thuny's theory; but until definitively settled, experiments on multiparous animals will avail little. In the meantime, the experiments of M. Cornaz on cattle have never been controverted.

The great importance of the theory, if true, both in a scientific and a practical point of view—both to the physiologist and the farmer, cannot be doubted. But the history of the theory can only be accomplished by intelligent and very careful observers. The physical signs of the generative period differ in different species, and in different individuals of the same species, particularly in domestic animals. It is always well marked in wild animals, but in domestic animals it is often obscure. Close and patient observation will, however, overcome all these difficulties.—*Dr. Joseph Leconte, Professor of Chemistry and Geology in South Carolina University. Nashville Journal of Medicine and Surgery.*

Failure of Dugas's Test in a Luxation of the Head of the Humerus into the Axilla.—A patient recently consulted us who had a luxation of the head of the humerus into the axilla, and which was of five weeks' standing. The distance between the acromion process and the external condyle was half an inch greater than on the sound side, and the elbow could be brought to the side with great facility, and the hand of the injured arm be applied to the opposite clavicle, thus effectually invalidating the test given us a few years since by Dugas, of Georgia. Dr. N. Foster, of this city, has also seen a case of a similar luxation, in a drunken person, where Dugas's test failed. By manipulation, aided by chloroform, we effected reduction in our case in about five minutes.—(*Prof. G. C. Blackman*) *in Cinn. Journal of Medicine.*

THE MEDICAL RECORD.

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MEDICAL PRECEPTORSHIP.

THE office of medical preceptor is perhaps the only one which the majority of medical men will conscientiously accept without any intention, either implied or declared, of performing its duties. The entering of a student's name in their offices is viewed as one of the matters of form, and they consent to it more for the reason of helping him to conform with the requirements of the law than for any instruction they intend to give him. When we contemplate that there are hundreds, nay thousands, of such preceptors upon our College catalogues, we may indeed be seriously concerned for our students. There used to be a time when almost everything depended upon the industry of these gentlemen; when their pupils came direct from their private offices, and were able to pass their final examinations for a degree before a licensing body. These examinations, too, were by no means discreditable either to the examiners or examinants, as they were conducted not only with acknowledged ability, but their decisions as to the fitness of their candidates were rendered without fear or favor. But since then the system of private office instruction has degenerated into nothingness; and a student is now considered fortunate who has selected a preceptor who is willing and able to teach him at all. There are numbers of our younger medical men who are willing to prove this assertion by testifying that they have not been examined more than a dozen times during their whole pupilage; while there are many more who would not have known that they had a preceptor, except that his name was recorded on the matriculation book.

We would fain make ourselves believe that this laxity on the part of our medical tutors is to be explained by the late rapid multiplication of our medical colleges, which enables them to clear themselves of further responsibility by leaving all educational matters in the hands of the managers of these institutions. But we cannot allow them the privilege of making such an excuse for their shortcomings, when they must be well convinced that our college system is so far from being what it should be. It is too plainly to be inferred that there is a dangerous disposition among them to shirk a very obvious duty.

This duty is one of the most important ones which a medical man is called upon to perform. To the medical preceptor belongs the responsibility of training the mind of the student, and of fitting him for the intelligent practice of his profession. He is, in fact, as accountable for the future professional character of his pupil as are the professors themselves. The work of both, although in different spheres, must go hand in hand; the lecturers draw the outlines, but to the preceptor is left the delicate task of skilfully completing the picture.

This much, and indeed more, is implied by the law. It is understood that no time of the three years is to be lost to the student, but that he should not only have the advantages which attend his full courses of lectures, but of three years of careful training in the office of some practitioner of acknowledged ability. The time for study is sufficiently short, and the opportunities which the student has are few enough, without denying the immense advantage which he may obtain from the judicious instruction of a willing and capable preceptor. He has a right to claim the dutiful performance of such services; and to too many of our tutors attaches the great culpability of denying them to him.

We are assured that there are many preceptors who are willing to do all they can for their students, and who conscientiously strive to instruct them; but, unfortunately, they are not possessed of the requisite ability. Their intentions are, to be sure, good enough; but the student cannot be said to be specially benefited by the imperfect manner in which such intentions are carried out.

When we narrow ourselves down to the selection of proper preceptors, we shall find that the number is too insignificant to avail anything. The fact is, that the wants of the student in respect to private medical instruction are so numerous and pressing; the number of subjects that he desires to be informed upon, which are not even glanced at by his professors, is so considerable; that the preceptor of to-day has to be a much different personage from the one of fifty years ago. An ordinary practitioner can hardly be expected to supply such wants, as a sufficient knowledge of all the subjects which should engage the attention of an ardent and industrious student would require too much of that time which should rightfully belong to his patients.

The best preceptors are those who devote themselves specially to the work of giving office instruction; but then, as before intimated, they are too scarce. This is partly due to the fact that the profession withholds the necessary encouragement to gentlemen who would gladly embark in the work. It is useless for the general practitioner to attempt longer to hold undisputed sway over his student, when he proves to himself almost daily that he is not capable of doing him justice. He is not to be blamed for not having the time or the opportunity for

teaching his pupil properly: but he deserves our condemnation if he withholds him from the superior advantages to which he is entitled, by refusing to endorse the enterprise of worthy and competent men.

We believe that by judicious encouragement of reliable tutors we have the only hope of easily remedying a great evil. By so doing we will yet have the preceptor entirely dispensed with, and his place taken by the qualified and dutiful examiner. There is some promise of this in the favor which the private medical classes are already beginning to receive. The faculties of our colleges are appreciating the worth of such preparatory schools, and are doing everything to countenance their continuance and favor their multiplication. This must have its effect; but it will necessarily be slow work, unless the profession generally follow the example of the professors. In doing this they will, we are convinced, render good service alike to themselves and their students. These so-called "quiz" classes are now managed with much ability; but their advantages will be proportionately increased by the competition which we hope will in turn be developed.

The Report of the Directors of the Experimental School for Idiots and Feeble-minded Children, at Jacksonville, Ill., demonstrates the practicability of educating these unfortunate classes in all communities. The method peculiar to this institution consists, in the language of the report, "in this, that it commences with exercises adapted to the very lowest degree of intelligence, and proceeds by a very gradually ascending scale up to the very point where ordinary systems of education begin. * * * * The institution combines in its organization both the family and the school, the children being four or five hours of each day in charge of a teacher; during the remainder under the care of the matron and her attendants. The last-mentioned attends them in all other than school hours, in their rising, dressing, washing, bathing, at their meals, and in their amusements, and, with a certain portion, in their household or other industrial occupations, watching their habits, and teaching them, as far as possible, self-dependence. In the school-room, it is the effort of the teacher to apply, with patience and kindness, a proper system of instruction, from physical exercises to other suitable educational means, such as her ingenuity may devise or may be laid down for her in a carefully prepared programme of exercises." The faculty of observation is especially cultivated, and a knowledge of words gained through the medium of music. The object sought, of arousing to action the dormant faculties by a methodical progression from things to words, has been well accomplished in a number of instances, which is the more remarkable when we come to consider that, "of the ten pupils now in the institution, upon admission only one could talk well; two were speechless; all the others were sadly deficient in their power of articulation; several were awkward in their movements, though all could walk; one could read; another knew the alphabet; none of the others could read; and when attempts at home or elsewhere had been made to teach them, they had signally failed. Not one was able to make upon the blackboard or slate a straight line. But one had an intelligent idea of number. With two exceptions, all had little or no idea of the distinctions of form or color; and in each case it was very difficult to arrest and fix the attention. All were more or less irregular and uncleanly in their habits, peculiar in their general deportment, and at the table. Some were passionate, disobedient; and one case, a girl, was so habituated to tearing her clothes in her fits of passion, that it was found very difficult to keep her decently clad. Few were able to dress or undress themselves, and two were cases of a very low grade of idiocy." The institution is under the charge of Dr. C. T. Wilbur, to whose praiseworthy and untiring labors is due in no small degree the success of the undertaking.

Reviews.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.B., A.M., M.D., Professor of the Principles of Surgery, Military Surgery, and Medicine, and of Fractures and Dislocations, in Bellevue Hospital Medical College, Surgeon to Bellevue Hospital and to the Charity Hospital, N. Y., etc., etc. Third edition, revised and improved. Philadelphia: H. C. Lea, 1866. 8vo. pp. 777.

Prof. Hamilton's work has, since its first appearance in December, 1859, been acknowledged to be the standard one on fractures and dislocations. We do not know of any treatise of its size that gives evidence of more earnest and conscientious labor than the one we are speaking of; and it must be a gratification to the author to know that his efforts are being so well appreciated by his professional brethren. In this new edition we have the results of the careful analysis of many additional and interesting cases, while the work as a whole has been most carefully and thoroughly revised. A very interesting and valuable feature in the book now before us is the selection of numerous woodcuts from *Gray's Human Anatomy*, illustrating the centres of ossification and the subsequent development of bone. The chapter on gunshot fractures has been enlarged and made more valuable, by the addition of such statistics as could be obtained from the published records of the contending armies during our late war. The woodcuts, of which there is a great number, are uniformly truthful and elegantly executed. Every fracture is fully, clearly, and carefully described; all the different apparatus for their treatment are figured; the dislocations are similarly considered; and nothing is left to be desired by any student or practitioner anxious to become practically and thoroughly acquainted with these most important branches of surgery.

A Practical Treatise on the Physical Exploration of the Chest, and the Diagnosis of Diseases affecting the Respiratory Organs. By Austin Flint, M.D., Prof. of the Principles and Practice of Medicine in Bellevue Hospital Medical College, and in the Long Island College Hospital, Fellow of the New York Academy of Medicine, etc., etc. Second edition, revised. Philadelphia: H. C. Lea, 1866. 8vo. pp. 595.

Inasmuch as the first edition of this valuable work

has been so long out of print, the profession should hail the appearance of a second with gratification. Although somewhat smaller in size than the previous edition, its usefulness is proportionately increased by many judicious modifications, condensations, and alterations. The author, throughout the whole work, successfully labors to impress his reader with the relative value of pitch, intensity, and quality of sound. In fact, he conclusively shows that this appreciation of the characters of sound is absolutely essential to the proper understanding of his subject. Differences which under other circumstances could hardly be acknowledged to exist are thus shown to be very considerable, while there are many which without it could not be recognised at all. No useless refinements are introduced into this eminently practical book; the writer's aim has been to simplify everything, and render a subject, so abstruse to most beginners, not only intelligible, but attractive. All this is accomplished, too, without sacrificing anything to a want of precision or to a comprehensive view of the different diseases taken up. No detail that is essential is omitted, and the different healthy and abnormal physical signs are so vividly described that the student cannot fail to understand them. The general remarks upon percussion and auscultation, which make up Part I., to be appreciated, must be carefully and thoroughly studied; and when the principles are mastered, their application to practice becomes not only an easy but a pleasant task. In this section of the work, the foundation is laid for a thorough knowledge of the respiratory diseases; and in Part II. these diseases are in turn taken up and clinically considered in company with the physical phenomena. The author is not a hobbyist, but gives his reader clearly to understand that "physical exploration develops a series of facts which are to be made the subjects of ratiocination in their application to diagnosis as much as facts obtained by other methods." An experience of ten years since his first edition appeared has enabled Prof. Flint to substantiate most of the statements which he formerly made, while it has also caused him to modify many which were too positive. It is needless for us to say that the book is well written, and has a creditable typographical appearance.

Manual of Materia Medica and Therapeutics: Being an Abridgment of the late Dr. Pereira's Elements of Materia Medica. Arranged in conformity with the British Pharmacopœia, and adapted to the use of Medical Practitioners, Chemists, and Druggists, Medical and Pharmaceutical Students, etc. By Frederic John Farre, M.D., Cantab. F.L.S., etc., assisted by Robert Bentley, M.R.C.S., F.L.S., and Robert Warrington, F.R.S., F.C.S. Edited with numerous references to the U. S. Pharmacopœia, and many other additions. By Horatio C. Wood, Jr., M.D., Professor of Botany, University of Pennsylvania, Auxiliary Faculty of Medicine, Member of American Philosophical Society, etc., etc., etc. With 236 Wood Engravings. Philadelphia: H. C. Lea, 1866. 8vo. Pp. 1030.

The Elements of Materia Medica, by the late Dr. Pereira, has long been considered to be *the* work upon the subject. There has been no authority upon the action and uses of medicine that has ever ranked as his superior. His profound and careful researches in a field almost unexplored before have necessarily secured for him this enviable reputation of a careful teacher and a ripe thinker. But his zeal to present to his professional brethren a work on materia medica that should be complete in every respect, and should serve as a reliable guide not only to the student and practitioner, but to the druggist and apothecary, swelled his treatise to such a size as in no small degree to interfere with its general adaptation as a text-book. Early in the present year, Dr. Farre, assisted by Messrs. Bentley and Warrington, undertook to make an abridgment of the work, and after much labor and pains succeeded in satisfying the wants of the practitioners of their own country. The reputation of Dr. Pereira and the English editors of the work was a sufficient guarantee for the excellence of the abridgment when completed, and a most gratifying demand was at once created for it. In that shape, however, it was only intended for the British physicians, and was adapted only to the requirements of the British Pharmacopœia. With a praiseworthy desire, Professor Wood, of Philadelphia, undertook the very onerous task of adapting it to the uses of the American physician, by making it accord with our own Pharmacopœia; and the result of these labors is now before us in a handsome, well printed, profusely illustrated volume of over a thousand pages. The task of the American editor has evidently been no sinecure, for not only has he given to us all that is contained in the abridgment useful for our purposes, but by a careful and judicious embodiment of over a hundred new remedies has increased the size of the former work fully one-third, besides adding many new illustrations, some of which are original. We unhesitatingly say that by so doing he has proportionately increased the value not only of the condensed edition, but has extended the applicability of the great original, and has placed his medical countrymen under lasting obligations to him. The American physician now has all that is needed in the shape of a complete treatise on materia medica, and the medical student has a text-book which, for practical utility and intrinsic worth, stands unparalleled. Although of considerable size, it is none too large for the purposes for which it has been intended, and every medical man should, in justice to himself, spare a place for it upon his book-shelf, resting assured that the more he consults it, the better he will be satisfied of its excellence.

Orthopedics: A Systematic Treatise upon the Prevention and Correction of Deformities. By David Prince, M.D. Philadelphia: Lindsay & Blakiston, 1866. 8vo. pp. 240.

The author of this work presents to the general profession a condensed summary of the most approved theories in reference to the cause of the different deformities in the human body, as well as the indications which are to be followed out in their treatment. Prepared with special reference to the wants of the general practitioner, it is intended for a well digested outline of all that is known of the cause, prevention, and cure of a very interesting and but little understood class of diseases. His descriptions are clear and concise, his views are tenable, and his deductions are eminently practical. Although there is not much originality in the work, this defect is made up by the skilful compilations from the authorities. The book is well illustrated, and is an admirable one for the student or practitioner who may not have given his attention to this class of diseases. It is a treatise that is calculated, too, to do a great deal of good in directing the general practitioner to the contemplation of what may be done for many of his supposed incurable patients by the exercise of ingenuity, guided by a correct understanding of the general principles for treatment. The publishers have done their part as far as typographical excellence is concerned.

A Treatise on Vesico-Vaginal Fistula. By M. Schuppert, M.D., Surgeon of the Orthopœdic Institute at New Orleans, Louisiana. (Pamphlet.)

This is the title of a pamphlet of forty-six pages, illustrated by sixteen woodcuts. While it must be admitted that the author is unusually modest in asserting his claims to success, still we are constrained to say,

that like many of the contributions upon the same subject of late, there is but little, in a practical point of view, to be gleaned from this, outside of its historical feature. One would very naturally be led to infer from seeing a publication bearing such an imposing title as the above, and dedicated to His Imperial Highness "Alexander, Czar of all the Russias," that it contained something new or valuable. But from a careful perusal of its pages we can find but one principle of practice laid down by the author, to which he can set up the least claim of originality, and in this, we will venture to say, he will have but few followers. We allude to his half-hour and daily injections of cold water into the bladder in his after-treatment. This strikes us as being contrary to all reason. Such interference with this organ at a time when it is of the utmost importance that it should be empty and quiet, cannot, in our judgment, be too severely condemned. The author again insists that the sutures should always be passed through the entire thickness of the vesico-vaginal septum. Scarcely need we say this practice is opposed to the teachings of almost every surgeon with any experience in this operation, and the reason must be apparent to every one, namely, the avoidance of secondary fistula and the consequent repetition of the operation, as it would appear happened in several of the author's own cases.

The author further tells us that he allows his sutures to remain in the tissues twelve to fourteen days. This rule is not sustained by the experience of other surgeons, and is particularly reprehensible, with the adoption of the author's views of passing them through the entire thickness of the septum. From the seventh to the ninth day is considered sufficient time for the sutures to remain in their places, except in the largest-sized fistulæ, where it might be advisable for them to remain one or two days longer.

Our author, after speaking of the various modifications of the button suture and the cruelties which have been practised upon it by innovators ever since its successful inauguration, thus concludes: "Such is the irresistible power of progress. Just as Sims had to relinquish his clamp, so will Bozeman seal his button to the tomb of the Capulets, and that, too, with no abatement of his former success of operating."

Now, as to the author's assumption regarding the ultimate abandonment of the button suture in practice, he evidently betrays a want of understanding of the correctness of its principle of action, and it is, we think, unwarranted, considering that his treatise of such respectable pretensions to success, rests almost entirely upon the results achieved by this form of suture.

By reference to the details of his sixteen cases, it will be found that fourteen of them were operated upon for closure of the fistulous openings. Twelve were subjected to the button-suture method, and seven of the fistulæ, the most of them of large size, were cured the first operation, and all the others, except one or two, were also nearly closed by the first operation. The cure was completed in all these cases of small fistulæ, resulting from partial failure of the button, by the interrupted twisted suture. Only *two cases* were subjected to the interrupted twisted suture alone. One of these, Case XIV., was operated upon by this method three times, and discharged in the same condition as at the beginning of the treatment. The other case was cured at one operation.

Of the two cases in which the author resorted to the method of M. Vidal, for closure of the mouth of the vagina, we are not sure but that he might have been saved from that expedient had he continued to adhere to the use of the button suture, which, it must be admitted, is peculiarly adapted to the closure of fistulæ in just such cases.

The facts here presented, from an analysis of the author's cases, are rather unfortunate, we think, for his contrast of the interrupted twisted with that of the button suture, and the reader is left to draw his own conclusions as to the relative advantages of the two methods.

Another fact deserving mention, as regards the results of the author's operations, is that two of his patients, Cases VI. and X., died while under treatment, and two others became the subjects of calculi, after the fistulous openings had been closed.

The latter circumstance, we are induced to think, is significant of another ill effect of passing the sutures into the bladder; and to this the subsequent formation of stone, in the above two cases, may very justly be considered as holding the relation of cause and effect.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 17, 1866.

Dr. James Anderson, President, in the Chair.

QUIMBY'S MODIFICATION OF SYME'S AND PIRIGOFF'S OPERATION.

Dr. Post, on behalf of Dr. Isaac Quimby, of Jersey City, N.J., exhibited the result of a new operation, in the person of a lad aged about ten years, whose foot had been badly crushed some four months ago. The operation may be described as follows:

A curvilinear incision is made across the dorsum of the foot, commencing anterior to and about an inch below the internal malleolus to a corresponding point on the opposite side, and these are connected on the sole of the foot after the method of M. Pirigoff of Russia. After forming the anterior flap and turning it back, the astragalus is carefully dissected from its attachments, care being taken to keep close to the bone. Then forming the posterior flap from the sole of the foot, and keeping close to the bone, the anterior half of the calcaneum is dissected out. This being done, and the soft parts being well retracted by an assistant, the saw is applied so as to remove the anterior half of the bone; then, after rounding off the sharp edges of the bone, and removing any spicula, the posterior half of the bone is applied directly to the articular surface of the tibia. After stitching up the flap in the usual way, a strip of adhesive plaster, three inches in width, extending from the upper portion of the gastrocnemius muscle to a corresponding point on the anterior surface of the leg, and passing directly over the os calcis, keeps the flaps closely and pretty firmly in apposition to the articular surface of the tibia. The plaster is kept there until union between the bones has taken place. The adhesive plaster and the manner of using it is regarded as a very important auxiliary in the treatment, as it effectually prevents the retraction of the muscle of the calf, and the gaping of the wound. In the present case the patient was able in six weeks to bear some weight upon the stump, in two months could walk quite well, and in three months was going to school, running and playing with the rest of the boys, with but very little apparent inconvenience, and without any artificial assistance from crutch or cane. The first advantage of this operation over any other at the ankle-joint is, that the vascular relations of the principal flap are much less disturbed, and there is therefore less danger of sloughing or of tardy and imperfect healing of

the wound. The second advantage is, that the integrity of the tibia and fibula is preserved, and there is on that account a better chance for the growth and development of the limb in young subjects. The third advantage is, that the length of the limb, from the hip to the heel, is diminished to so slight a degree that the difference is scarcely appreciable.

RESULT OF A PLASTIC OPERATION FOR DEFORMITY FOLLOWING CANCRUM ORIS.

Dr. Buck introduced to the Academy a boy nine years old, who had been admitted into St. Luke's Hospital last spring, for the treatment of a deformity resulting from cancrum oris, which, in its turn, had occurred during some low form of fever, probably typhoid. The former disease had involved in its destructive action the mucous membrane of the cheek, and thus obliterated its cavity; the right half of the upper and a great portion of the lower lip had disappeared, and the cicatricial tissue had, by its contractions, rendered mastication nearly, if not quite, impossible.

Dr. B, by means of photographs, plaster-casts, and the patient, described in detail the original condition, the required operations, and their results. He called attention to the improved appearance of the boy, whose situation in other respects had certainly grown no worse, although he had not yet been able to dispense with the wooden plug for keeping his jaws separated.

MAL-PRACTICE IN ITS LEGAL RELATIONS.

Dr. Ordronaux stated, in the course of his paper, which he prefaced with an apology for the almost inexhaustible nature of its subject, and the impossibility of its being treated in any other than a general way, that the issues of cases depended as much upon a point of law as upon a point of practice. Many strange verdicts had thus been rendered in the case of charlatans, because the law was extremely jealous of personal rights, and discriminated between the act, and the mind or intention of the criminal. The legal status of physicians, therefore, becomes a legitimate subject of consideration. Every professional man is expected to bring to his vocation the exercise of either the ordinary or an extraordinary amount of skill. *Ordinary skill* is not an absolute but a relative term, since the standard of skill, like that of morals, may vary with the times and the locality. Thus the doses of the ancients were nearly and in some instances quite four times as large as our own. Thirty-one grains of aloes, and from six to eight grains of opium, were given. Were we to make the standard absolute we should be open to the charge of attempting to fabricate genius, and would, in effect, deprive whole communities of physicians. If then an ordinary amount of skill can be rightfully demanded by the patient, are all degrees equally respectable in a legal sense? We answer, yes! since, notwithstanding the standard in some schools is very degraded, and the knowledge to be gained in them painfully diluted, the law cannot discriminate between the creatures of its incorporated legislation. *Extraordinary skill*, as a term, needs no special definition; when exercised, its claims, in accordance with the law governing demand and supply, are recognised in the matter of more liberal fees.

Malpractice may consist in acts either of *commission* or of *omission*. In the former class are comprehended unwarrantable experiments, etc., etc.; while under the latter are embraced instances of negligence, want of due diligence, etc., etc.

But physicians are neither common carriers nor publicans; it is their reserved right to refuse a call, and, from the fact that the contract between physician and patient is voluntary at its inception, either party may dissolve his relationship to the other. The physician may withdraw from his case after due notice, and so avoid the charge of neglect; but the patient may summarily dismiss his attendant because the former has stipulated no time. The patient must surrender himself to his medical adviser, otherwise, in the language of Chief-Justice Lewis, of Pennsylvania, "his neglect to cöoperate is his own wrong or misfortune."

The majority of suits for malpractice are brought against surgeons, because results are here more patent; failures are deemed inexcusable by the patient, who, from motives of malice or gain, has been urged to prosecute. His attendant is expected to be a medical carpenter, competent for any repair. Inasmuch as impossibilities bring no responsibilities, and treatment is under Providence, the physician is never called upon to warrant a cure. But should he so far evince the weakness and vapidity of his intellect as to promise any such result, the law can do no otherwise than hold him to the letter of his contract.

As regards the responsibility of the consulting surgeon the law holds that when called in for counsel only, his liability ends with his visit; but should he operate, a new direction is given to the case, and he becomes responsible for the immediate results. Some surgeons are in the habit of detailing their students to perform their minor operations, but here the student does not become a principal, and is not liable, because *a personal trust cannot be transferred.* The exaction by the surgeon of bonds not to sue as a pre-requisite to assuming control of a case is a practice unnecessary, worthless, and against public policy, since the act expresses a want of confidence both in his own skill and in the honesty of his patient. Yet with equity on the side of the defendant in a suit for malpractice, the case, owing to the susceptibilities and ignorance of mere laymen, may not be adjusted on its true merits.

As a remedy for many of the evils, he urged that the medical schools strengthen themselves by united efforts into a kind of scholastic nobility; for it is in this way, he contended, the victory would incline to their side in accordance with the well known law that corporations were, of necessity, more powerful than individuals.

The Academy then adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Nov. 7, 1866.

Dr. James Anderson, President, in the Chair.

TRAUMATIC NEURALGIA.

Dr. Post stated that a medical gentleman from Georgia, while here during the winter of 1861–2, sustained what he supposed a simple sprain of the wrist as the result of a fall upon the ice. The pain, which was located in the posterior part of the wrist, became about a year ago very intense; so much so, indeed, that he consulted Prof. Dugás, of Atlanta, Ga., relative to the propriety of surgical interference. This gentleman made an exploratory incision, and detected evidences of an oblique fracture of the radius, together with an encroachment of a bony growth upon the interosseous space; this growth lying in contact with a superjacent nerve, was regarded as the cause of the irritation. The nerve was merely incised and the wound allowed to heal. The question of amputation was also mooted as a not unlikely *dernier ressort.* This treatment proved only palliative; it was not long before so acute became his sufferings, although his general health was unimpaired, that when he consulted me, he was using 30 grains of morph. sulph. as a nightly dose. Finding for the first time in his experience the inadequacy of ether to

produce anything more than mere excitement, he resorted to chloroform, and using the old cicatrix of Prof. D. as a guide, he repeated the incision. He found the dorsal branch of the musculo-spiral nerve four times larger than normal, very red, and vessels from every direction coursing towards it. After an excision of about an inch of this nerve, a reduction of the anodyne to six grains proved the mitigation of his sufferings, which, upon the subsidence of the inflammation consequent upon the operation, entirely disappeared.

A week after this, a young soldier came to him with a painful stump. He had been wounded before Richmond two years ago, and had submitted to an amputation of the arm at a point midway between the shoulder and elbow. Upon examination he detected two hard, exquisitely tender tumors occupying the site of the median and ulnar nerve. A dissection of about two inches of the mass relieved the patient after the wound had entirely healed.

While in Colorado, two years ago, he was consulted regarding a case where the same kind of ganglionic enlargement presented itself in the upper third of the arm, and involved the median nerve. A portion of this he removed, as in the other instances, and having found that the integument fitted over the bone very tightly, he sawed off a portion of the latter. A year ago the patient was still free from pain.

All these cures cannot of course be accounted certain until after the lapse of a considerable time, since the old difficulty may return; but the results in the cases cited were so far quite satisfactory.

In this connexion, he might mention another case, but not of a traumatic nature; it is one which was brought to his notice within the last few days. The patient, a lady, in great agony in consequence of a sciatica of the anterior crural nerve, had derived but little if any benefit from a hypodermic injection of morphine, to which he had resorted, but the tenderness had entirely disappeared after the application of three camphor moxas during anæsthesia.

HYPODERMIC INJECTIONS.

Dr. Bulkley alluded to several cases of fever in which he had used the hypodermic injections of quinine with the most gratifying results. The cases were of the very severe congestive type, known in the South as the Aspinwall fever. In one, the patient, when admitted into hospital, was in a state of complete collapse, unable to swallow, pulseless, etc., but rallied after at least twelve subcutaneous injections of four grains of quinine at each time. He died, but from another cause. In another case nearly as bad, only some three or four injections were necessary before reaction was established. A third patient recovered in like manner, but much more readily. His colleague, Dr. G. M. Smith, had succeeded in stopping the paroxysms of ordinary intermittent fever by anticipatory injections of the same strength. No unpleasant consequences, except a small abscess resulting from the puncture of the instrument, in one instance, had so far followed a resort to this mode of introducing the drug into the system.

℞. *Quiniæ Lisulph.* ʒ i.; *Acid. Sulph. Dilut.* gtt. 50; *Aquæ f.* ʒ i.; *solve,*

will be found a convenient formula. Care, however, should be used to dry the instrument after use, since this proportion of acid is very apt to corrode the metal. Thirty-five minims of this solution were equivalent to four grains of the salt.

Dr. Post had noticed that many physicians, in using the syringe, inserted the point, and then injected the entire contents at once. The better way, he thought, was to insert the instrument, inject a few drops, then push it a little further; repeat the manœuvre, and so on, until the contents were expended. In this way the fluid had a chance of being diffused, and so acted better, without the tendency to produce unpleasant consequences. In the case of morphine, he got rid of the irritating acid by substituting boiling water as the solvent.

Dr. Elsberg asked the experience of any Fellow regarding the proper strength of strychnine to be used when its subcutaneous introduction was required. He had himself tremblingly employed the agent, in cases of local paralysis, in doses of from one-fortieth to one-twentieth of a grain, dissolved in glycerine; but a brother practitioner had informed him that he had gradually increased the strength from one-twelfth to one-tenth of a grain.

Dr. Worster had taken the hint from one of the medical periodicals, in which it was stated that the muriate of morphia did not nauseate, while the sulphate was very apt so to do; and was now in the habit of using the muriate subcutaneously, to the exclusion of the other.

Dr. G. T. Elliott was not inclined to the indiscriminate administration of sedatives hypodermically, although in years gone by he had resorted to its tentative use very frequently in hospital practice, and in fact claimed the honor of having tried it in the two first cases in America, the details of which were published in the *New York Journal of Medicine* about November, 1858. These trials of the method were made before a medical class in the course of a clinic at Bellevue Hospital, and were for the treatment of sciatica. Since then he had used the syringe much less frequently, not from a loss of confidence in its efficacy, but perhaps from a liability to change, and certainly from a desire to check the tendency to self-injecting, which he thought had in some circles grown into a custom; the object sought being intoxication from opium. He recalled the case of a patient anasarcous and dying, who had secretly practised this for a long time, and whose cicatrices upon the deltoids, the arms, chest, sides, thighs, etc., became the seat of ecchymoses, exactly simulating purpura.

Dr. Bell had discovered that in varicose veins the persulphate of iron of a strength equal to one part of the salt to thirty of water, was quite sufficient to produce a clot not liable to ulcerate through. This dilution was far below the average standard, but he had adopted his formula after many experiments.

The meeting then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, MARCH 28, 1866.

Dr. Frank H. Hamilton, President, in the Chair.

TREPHINING FOR EPILEPSY.

Dr. Markoe presented the calvarium of a patient which had been trephined for epilepsy. He remarked that the specimen was instructive in two points of view, not only in reference to the employment of trephining as a remedy for epilepsy, but also as illustrating some interesting features in connexion with necrosis of the cranial bones.

The patient from whom the specimen was removed was a boy seventeen years old. At the age of five he was run over, and received a wound upon the left side of the forehead. No bone was broken, and the wound cicatrized rapidly. Six months after the receipt of the injury he, rather suddenly, and without any preliminary morbid symptoms, became paralysed on the *right*

side. The hemiplegia was quite complete. After a few weeks he recovered somewhat from this condition, but never entirely regained his former health: his memory seemed to be weakened; his activity diminished; and he suffered considerably from headache. He nevertheless was able to go to school, and grew and throve as most boys do between the ages of six and fourteen. At fourteen an attack of epileptiform convulsion took place. During all the time previous to this attack, whenever he had his headaches, the scar on his forehead became reddened, and was the seat of considerable pain and tenderness. After a time the epilepsy became settled, occurring at intervals of from three to five or seven days. In the latter part of the time the attacks were quite regular and took place weekly, the particular day being on Sunday. In the meantime the intellectual faculties seemed to suffer very much, and he was gradually drifting into that condition of mind which is associated with confirmed epilepsy.

This was the state of things when Dr. Markoe first saw the patient, about five months ago. The boy's family, naturally exceedingly anxious about him, were willing to have anything tried that offered a prospect for relief. It seemed to be a case in which the disease might fairly be associated with the injury received so many years before. At any rate, it was deemed proper to make the attempt, as statistics, as far as they could be collected, gave a reasonable promise that good might be accomplished by operative procedure. Some preliminary treatment, in the shape of the local application of leeches, etc., was first resorted to, and they having failed of any good effect, the operation of removing two discs of bone by the trephine was performed on the 20th of October. These buttons of bone were removed about an inch from each other, and the intervening space was gnawed away by the rongeur. This left an opening in the skull-bone about two inches long and three-quarters of an inch wide. The edges of this opening were carefully rounded off, in order to be sure that all mechanical irritation in the shape of roughened bone was removed. The result of the operation was in every way satisfactory, and during the four weeks succeeding the operation there were no epileptic attacks. At the end of that time he had a very slight one, and was again free from any similar one for two weeks longer. The wound commenced to fill up, and everything looked exceedingly favorable. It so happened, however, that at this time the condition of the hospital was very bad, and, as the result, pyæmia prevailed, and all the sores took on a very unfavorable action. This patient suffered along with the rest, and pus began to burrow under the scalp in every direction. Counter openings were promptly made and pressure was applied, but still this unfavorable condition was not remedied, and the probe, introduced from time to time through the new openings, showed the bone to be extensively denuded and dead. In the meantime the action of the wound became unfavorable, the granulations became flabby and indolent, and the general condition of the patient was much reduced, the convulsions increased in frequency, and he finally died about a week ago.

About fourteen days before he died, by which time he had fallen into a condition of very complete coma, a fungus cerebri sprang up and grew so rapidly that at the time of his death it was the size of a small orange.

At the post-mortem examination the hernia cerebri was shrivelled down to a pultaceous reddish mass. Immediately under that portion of the brain giving rise to this fungus was a considerable district of cerebral substance that was soft and of a greenish-yellow color. No abscess was found in the vicinity, although a careful search for one was made, and it seemed that the protuberant mass was a mere growth of tissue from the softened portion of brain. On the other side of the brain a deep-seated abscess was discovered, which corresponded in situation on the right side with the wound on the left. This abscess contained two ounces of laudable pus. The calvarium was found extensively necrosed; and the dead portion, which occupied nearly one-quarter of the surface, presented a greenish aspect, which was derived from the pus which had lain so long in contact with it. *No effort had been made on the part of nature to separate this sequestrum.* This circumstance Dr. Markoe considered as very remarkable. He remarked that such a condition of things was not uncommon in connexion with syphilitic disease, but he had never before met with an instance where this non-separation was so plainly and unequivocally associated with a traumatic origin.

It so happened that during the past winter he had had an opportunity of seeing four cases of necrosis of the cranium, two of which were of syphilitic origin. In one of these syphilitic cases the dead bone was thoroughly removed by Dr. Allen and himself, so that every part left was healthy and bleeding, yet the disease afterwards extended so as ultimately to involve nearly the half of the skull. In another of the syphilitic cases the disease was obstinately progressing, with, of course, no sign of separation.

In the epileptic case a third example of non-separation was afforded. In this one, he remarked in passing, not only was the pericranium separated, but nearly a corresponding extent of dura mater as well, pus lying in contact with both sides of the bone. The necrosis occupied the entire thickness of bone corresponding to that surface from which the dura mater was separated.

As a contrast to the non-separation of sequestrum he cited the fourth case. A man, while walking along the street, was shot by a pistol in the back of the neck by a comrade. Dr. Markoe, although not in attendance at the hospital, happening to see the case, made an effort to extract the ball, which had entered just below the occiput, through the posterior muscles of the neck, a little to the left of the median line, and had penetrated down towards the atlas. He enlarged the wound, and passed his finger down until he encountered the lower part of the occiput, where he found a hole in the bone. Whether this opening extended through the bone or only through the outer table, he was, on account of the depth of the wound, unable to ascertain. As the ball could not then be reached, no further efforts were made at that time. After the inflammation and swelling, consequent upon this procedure, had subsided, it was thought proper to hunt for the missile. Dr. Sands, whose case it was, after being satisfied of the situation of the ball by the use of Nelaton's probe, made a free incision through the muscles, and soon succeeded in reaching it, and then easily removed it by means of a small bullet-forceps. It having then been found that the osseous tissue in the neighborhood was bare and necrosed, the incision was enlarged, and after some little difficulty a large shell of bone in three parts was removed. The necrosis seemed to have been superficial, and to have extended over an area which was equal to three inches in one direction and two inches in another.

These three portions, which were of very irregular size when placed together, showed the existence of a deficiency at the point of junction caused by the ball.

In answer to a question regarding the first case, Dr. Markoe stated that the dura mater was not injured at the time of the operation, and that the ulceration which afterwards took place in this membrane, and allowed

the protrusion of the fungus, was limited exactly to the margins of the opening in the bone.

In reference to the non-separation of bone Dr. Markoe further remarked that Stanley referred to a case of necrosis in a stump which had evidently existed for thirty-five years, and yet at that time there were no signs of separation. This was, however, a syphilitic case.

Dr. Hamilton was of the opinion that when separation of the dead from the living bone did not take place in traumatic cases the constitution was too much enfeebled to allow it; and, as cases in point, he referred to those of osteo-myelitis, which have been so common during the past war. In those cases, which always occurred in feeble constitutions, the disease not only showed no tendency to separation, but, on the contrary, showed a disposition to progress, so that in not a few instances the entire bone of an extremity would become involved.

NEUROMATA.

Dr. Krackowizer first exhibited the extremity of the stump of a forearm which had been removed by re-amputation. The individual from whom it was taken was a soldier who was wounded at the battle of Gettysburg. His right arm was shattered, and was amputated several days subsequent to the injury. The wound took several months to heal. About the time that the cicatrization became complete, the patient noticed two small nodules, which were movable and painful. These continued to increase in size, and he was left with very little rest. Dr. K., by the kindness of Dr. Marsh, saw the patient at the "Lincoln Home," and concluding that neuroma existed either true or false, decided, as the stump was badly shaped, to remove the disease by re-amputation. The principal nerves of the extremity were found on dissection to terminate in these nodules.

RESECTION OF SHOULDER FOR CARIES.

Dr. Krackowizer exhibited a second specimen, which was also removed from an inmate of the same institution. The patient was a soldier in one of the New York regiments, and had been stationed in the Southern Department. He noticed in the summer and fall of '63, while lying before Port Hudson, a pain in the right shoulder. He soon found that it was very difficult for him, in consequence of this, to handle a musket. But he continued on duty, and a few months after he participated in the Red River Expedition. During that expedition he was taken prisoner, and for thirteen months underwent all the privations of a stockade. The pain in his shoulder increased gradually to that extent that he was not able to lift his arm. He arrived at home in June of last year, and soon afterwards a swelling formed on the anterior aspect of the middle of the left arm. This was poulticed, and finally opened, but the discharge continued for months, so that his health began to be seriously impaired, and for the last few weeks he suffered very considerably with hectic fever.

When Dr. Krackowizer saw him there were two sinuses on the middle of the anterior aspect of the right arm, which extended up towards the shoulder-joint, which was evidently seriously diseased. The operation for resection of the shoulder was decided upon and performed. The incision was the usual longitudinal one. The os brachii was first decapitated at its surgical neck, but the bone being diseased lower down an additional ring was afterwards removed. The patient at last accounts was doing well; the night sweats ceased soon after the operation; his appetite returned, and he was able to sleep well.

On examining the specimen the articular surface of the head of the bone was found entirely denuded of its cartilage and worm-eaten. This latter appearance also extended down the anatomical and surgical neck.

MORBUS COXARIUS—RESECTION OF HEAD OF FEMUR.

He next presented a third specimen, the head of a femur, which he had resected about a week ago. The patient was a boy six and a half years of age. About three years before the child had very decided symptoms of coxitis. For this Davis's Splint was used, and a cure was effected in eight months. Last July, after a long walk, the child complained of a pain in the hip, and in a couple of days after he began to limp. The parents, appreciating the significance of this symptom, at once sent for the doctor. The child was put to bed immediately by Dr. K., and elastic extension was employed. The attack was much more aggravated than the previous one. Davis's splint was not used, because it was supposed that, under the circumstances, a proportionately greater amount of good could be done by rest and extension combined. The parents, who were very much attached to the splint, could not be made to understand why it was not again employed; and becoming dissatisfied with the mode of treatment employed, the case passed for a time out of the doctor's hands. The patient was then taken to a water-cure establishment, but notwithstanding the thorough washing and steaming that he received there was no improvement. Dr. Krackowizer was called four or five weeks ago, when he found that the disease had progressed very materially. The pains were more severe, and his screams at night more frequent. Two or three weeks after the patient seemed greatly relieved, which fact was explained by the rupture of the capsular ligament and a swelling making its appearance on the outer aspect of the thigh. On examining the child under chloroform, a grating sensation of the two surfaces of the joint was obtained on moving them against each other. Exsection was decided upon, and the operation was performed on the Friday preceding. The specimen presented the usual appearances which belong to ulcerative coxitis; the upper and posterior part of the cartilage of incrustation was denuded, as well as the upper circumference of the acetabulum. The patient, at the time of reporting the case, was doing well.

The Society then went into Executive Session.

Correspondence.

MEDICAL MATTERS IN PHILADELPHIA.

PHILADELPHIA, November 1, 1866.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—Since my last, professional matters in this city have again become active. Professors are daily engaged in instructing new aspirants for medical honors, how to obtain them and wear them; private tutors are busy in giving practical instruction in the various special departments, and medical organizations have resumed their customary meetings and discussions.

The Philadelphia County Medical Society has had two conversational meetings, one in September, when the subject of "*Diseases of the Membrana Tympani*" was descanted on by *Dr. L. Turnbull;* the other in October was occupied principally by *Dr. J. Solis Cohen*, on the subject of "*The Laryngoscope, and its Uses, in Diseases of the Throat and Windpipe*," an abstract of which has not been prepared, inasmuch as the series of articles on Laryngoscopy, from the pen of that gentleman, now going through the columns of the RECORD, treat the subject much more fully.

Some little discussion on the all-absorbing subject of cholera was indulged in, but nothing new was elicited, except that one member mentioned that he had seen in a recent number of the *Leipsic Illustrirte Zeitung* an account of the inoculation of *quassia* as a preventive against cholera, for which it was claimed that success had followed a large number of experiments in Stettin, Prussia.

Dr. B. H. Coates extolled highly the virtues of Sydenham's laudanum, in doses of from three to five drops, in the forming stages of cholera, as also in ordinary diarrhœa, cholera morbus, etc.

At a stated meeting of this County Society, the subject of *the status of female physicians* was broached, and a committee appointed to give some attention to the subject, and report some suitable action for the consideration of the society. This subject is to be discussed at the various county societies in the State, with a view of ensuring some definite concerted and final action at the next meeting of the State Society.

A strong influence in favor of female physicians is being brought to bear in various ways. One of our prominent teachers of special branches lately was visited at his office by three lady practitionists, who desired to take his ticket. Of course they could not be accommodated.

The *Northern Medical Association* has had several meetings, and discussions have been had on epilepsy, mother-marks, uterine displacements, etc. On one occasion Dr. James Collins exhibited a striking example of what is generally described as *Grave's disease*, consisting in certain abnormal heart-actions, with prominence of the eye-balls, and enlargement of the thyroid cartilage. The patient was a girl of twenty years of age, whose previous history gave evidence of mental derangement in her youth. The doctor promised the Association a paper on this subject during the winter, which will doubtless prove of sufficient interest for communication.

The number of medical students in attendance at the Medical Department of the University and the Jefferson Medical College is much less than last year, and seems to be owing in a great measure to the increase in the price of tickets, which has been adopted here and in New York, and some other cities. It does seem strange that the old price of fifteen dollars per ticket should have been maintained during the entire existence of the late rebellion, while the price of everything else increased, and that now an extra fee should be demanded. Many students who were not aware of the change until their actual arrival in the city find themselves some thirty-five dollars out of pocket, no trifle to a large number of them. It is quite likely, too, that many medical students who would have come to New York or Philadelphia to take both their courses of lectures, have been induced to remain nearer home during their first course, where the old prices prevail. It is not likely that the number of graduates will be much less this year than last, though the whole number of actual matriculants will be considerably less.

There has been some change, too, in the curriculum at the Jefferson Medical College, which increases the usual amount of instruction, but, at the same time, entails an extra hour's daily attendance.

Dr. J. Da Costa has been appointed clinical teacher of medicine, and holds two medical clinics weekly. In addition to this, Prof. Wallace, of the chair of obstetrics, has two clinics weekly for the treatment of *diseases of women and children;* so that, with the usual surgical clinics, there is clinical instruction every day. Formerly, clinical instruction was given every Wednesday and Saturday—medical clinic from twelve to one, and surgical clinic from one to two o'clock. This winter, the surgical clinic is given every Wednesday and Saturday, and occupies two hours, from twelve to two. And these clinics, too, afford the best practical school of surgery in the country, and are superior even to the surgical clinics of Europe. The amount of material presenting is much more than can be made available, and affords an admirable opportunity for selection of instructive cases. There have been presented to the class since lectures began, several cases of stone, several of cancer, several of club-foot, etc., etc.

Two or three rare cases that were recently presented at this clinic are worthy of particular attention. One was a peculiar case of congenital hypertrophy of the hairy scalp. A female child was brought where hair grew on one side fully to the median line, over the entire forehead, including the eyebrow of that side. The rest of the forehead was of good size. The operation for relief of the deformity consisted in dissecting off a flap containing the superabundant mass of hair, not involving the whole thickness of the skin, but splitting it, as it were. The operation was a tedious one, and it remains to be seen what success will attend it.

Another unique case consisted in a hypertrophy of the skin covering the knee. A large movable circular tumor, several inches in diameter (congenital), occupies the region over the patella, and is surrounded by a zone, some three inches wide, of thick long hair.

Another case presents a remarkable combination of diseases. A girl, aged fourteen, has very marked lateral and dorsal curvature of the spine, with hydro-rachitis below it, the tumor being quite extensive; and in addition to these troubles there is acquired hypertrophy of one foot and leg, and valgus of the other foot.

A very interesting case, recently operated on before the class, was that of a soldier with bony anchylosis of the knee-joint, the result of previous gunshot injury, the limb being at an acute angle. The bony connexions were broken up in part by the drill, and the limb forcibly extended to a more suitable angle. The case is doing finely. Prof. Gross some months ago invited the writer to see a similar case on which he had operated. This was a young lady of eighteen or twenty, whose limb had been anchylosed since she was eleven years of age. Forcible extension had been made, as in the instance above narrated, and the patient left for her home three weeks after with a useful limb, having recovered without a single untoward symptom.

Yours truly, C. J.

THE CHOLERA IN BOSTON, ETC.

Boston, November, 1866.

To the Editor of the Medical Record.

Sir—It has been some time since I wrote you a letter from our city, and I have delayed doing so for a variety of reasons, most prominent amongst which are general good health and scarcity of medical news, cholera not excepted. Our city physician has written a pamphlet in reply to the board of consulting physicians, which you have already noticed in your journal, retracting former views expressed by him as regards the contagion of cholera, and taking positive grounds as to its communicability, contagion, etc. Notwithstanding his lengthy pamphlet, there is still in the profession the same diversity of opinion; and the majority of our physicians do not, as far as I can learn, believe in the contagiousness or communicability of cholera. One thing is certain, we have had but very few cases; and, in my opinion, many which have been reported as genuine were in reality cholera-morbus. But I do not propose

to discuss the matter, or weary your readers with a lengthy copy from either of the pamphlets which were published. Our board of consulting physicians consists of Drs. John Jeffries, Winslow Lewis, Henry G. Clark, C. E. Buckingham, and D. Humphreys Storer, all of them gentlemen of high rank in their profession, of large experience in medical matters; and in both of their city documents one cannot help but contrast the plain and concise arguments used, so respectful in tone, in contradistinction with the lengthy and self-opinionated documents of the city physician. The consulting physicians, in closing their report, say: "Under a deep sense of their responsibility in expressing the opinion, the consulting physicians unequivocally declare their conviction that the disease is neither contagious nor infectious; that it cannot be propagated by being near the sick, nor by handling the secretions or excretions from bodies of the sick or of the dead. The disease is epidemic, and cannot be restrained or controlled in its progress by quarantines or cordons of any kind. It can be controlled by temperance, chastity, and, above all, by perfect cleanliness, and by these only. They are of the opinion that neither quarantines by sea, nor sanitary cordons by land, have ever been found, or can be made effectual, in protecting cities or communities from the visitation of cholera, and recommend that no such restrictions be made; but in order to produce tranquillity in the public mind, *and from respect to the opinions of those who think differently*, they think it might be well that vessels coming from places in which the disease exists should be made subject to the visitation of the port physician; but that none of the passengers or crew should be in any way restrained from freely communicating with their friends on shore, or with the city, or from landing at any time with their personal baggage or effects; and no vessel should be detained in quarantine longer than is absolutely necessary to put her in a cleanly condition."

Last May the same board, in another document, recommend "tranquillity of mind, occupation in customary business, strict temperance, attention to diet, prompt care of premonitory symptoms—especially looseness of the bowels, avoidance of the use of nostrums, and immediate application to a regular physician." They also say: "Each member of the board during two, and some of us during three invasions of the disease, have attended and handled the sick, and dissected the bodies of the dead; have known the well to lie safely with the sick, and even to sleep with the bodies of the dead; have themselves remained sometimes long in the chamber or ward of the sick, or where the dead lay in numbers, waiting for interment, without having seen a case where it was shown to have been communicated by contagion; all of which being so unlike the course of diseases propagated by contagion, such as ship-fever, etc., and for which contagion furnishes no explanation, but which can be explained on other grounds. All these considerations lead the consulting physicians to as full an assurance as negative testimony can furnish, that *cholera is not contagious*. The testimony that it is so is not only negative but altogether presumptive, and leaves unexplained many of its prominent features." Dr. Henry G. Clark, one of our most prominent physicians in regard to matters of sanitary import, has favored me with a manuscript of a paper read before the "American Association of Social Science," from which I copy some remarks pertinent to the contagion of cholera. "The cases at various sections of the city, though few in number, show distinctly enough the epidemic tendency; and the necessity for the resumption, on the part of the Board of Health and of the people themselves, of those precautionary and preventive sanitary measures, which, perhaps, under the pernicious influence of the fallacious doctrines of theoretic contagionists, and the possibility of exclusion by quarantines, seem to have been of late too much neglected. One does not need to keep a constant watch over a fire and burglar-proof safe; and if it is believed that cholera can be kept out of Boston by fencing the avenues into it by quarantines or cordons, and a sharp inspection of all comers from all places where cholera prevails, what need is there to cleanse and deodorize the foul drains, vaults, and cesspools; to thin out the overcrowded houses of the poor; to take personal precautions as to diet, diarrhœa, or disagreeable odors; to inspect the markets; or, in fact, to do any or all of the things we have been accustomed to consider necessary or proper to be done?

"Since, then, it is easy to see how practically injurious the theory of contagion, now fashionable rather than general, may be, there are some points which may well be noticed:

"1st. All other contagious diseases, properly so called, are accompanied with an eruption on the skin.

"2d. Very great exposure of large numbers of hospital attendants to a large number of patients during a whole epidemic, is had without the occurrence of a single fatal case among them. This fact was noticed in regard to the cholera hospital on Fort Hill, in the year 1849, where not only the attendants and inhabitants on the hill, but the ambulance drivers, the undertakers, and the physicians who handled freely and continuously the bodies of the dead and dying, escaped.

"3d. Most of the alleged cases of contagion are at least as well explained upon some other theory.

"4th. Many of the alleged facts are not well authenticated, and are of very much the same character as those relied on by the people of the island of Boa-Vista (one of the Cape de Verdes) in their claim against the British government vessel 'Eclair' for having introduced yellow fever into it, a charge which was wholly disproved afterwards.

"5th. Dr. Snow's statement that certain cholera cases in Westminster, England, were produced from drinking water from a pump which was found to be contaminated by a contiguous sewer, is relied on as an evidence of the 'communicability' of cholera. But the only things proved by this case and by the observations of Professor Pettenkofer of Munich, are, that 'the situation of houses upon a porous soil of any kind ensured a greatly increased rapidity and energy of diffusion of the disease;' and, as Mr. Goodeve, quoted by Mr. Anstie, says, 'the places in which the air is most vitiated by drains, decaying animal matter, and vegetable refuse, or overcrowding and concentration of human emanations, are those in which cholera has generally been most fatal and most widely spread.' There is no difficulty, therefore, in believing with Dr. Snow that the drinking of foul water, or with Prof. Pettenkofer, that the breathing of emanations from the soil thus impregnated, will, in cholera seasons, produce cholera. *But they prove no contagion.* Indeed, the famous Broad-street well case in our city, so far as it proves anything, disproves the theory altogether. Finally, *there is no evidence that the patient who was supposed to have contaminated the well had cholera at all.* I have deemed it requisite to say thus much in regard to the question of contagion, because, in the words of Dr. Southwood Smith, 'it appears that in proportion as undue weight is attached to this dreaded agent, the effect is mischievous; since it diverts attention from the true source of danger and the real means of protection, and fixes it on those which are imaginary, creates panic, leads to the neglect and abandonment of the sick, occasions great expense for what is worse than useless, and withdraws attention from that brief but important

interval between the commencement and development of the disease, during which remedial measures are most effective in its cure.'

"The opinions of writers who, from their position and experience, are entitled to credence upon their own statements made upon their own observations, without quoting all the arguments, assuming that the evidence which has convinced them is competent to satisfy us.

"The General Board of Health of Great Britain, composed of the most competent men, and possessed of the best means of judging a question of this sort, do not believe in the contagious nature of cholera, and disapprove wholly of all measures based on that theory; but say that the true safeguards against pestilential diseases are not quarantine regulations, but sanitary measures—that is to say, measures which tend to prevent or remove certain conditions, without which pestilential diseases appear incapable of existing.

"Their final statementis, that 'an attentive consideration of the course of the disease from nation to nation is *not favorable* to the view of its propagation by contact from person to person.' This opinion is confirmed and repeated by the experience of the epidemic of 1854. Dr. Sutherland, one of the board, says: '*I look upon the evidence of the non-contagious character of cholera to be perfectly conclusive.*'

"The contrary opinion is held chiefly by those who are interested in quarantine, by consular agents, and such-like non-professional persons, or by those whose experience has been insufficient, or whose observations have been made in aid of a theory rather than for the development of a truth."

Our city physician certainly has not proved this theory as to the "contagion of cholera," in the few cases we have had in our city, and I have yet to learn of a single case where the disease has been "communicated." Dr. Reid's manner of exciting the fears of the people was also, in the opinion of many of our best physicians, very injudicious; and had it not been for the excellent and well-timed document of our consulting physicians in allaying those fears, I have no doubt we should have experienced a larger amount of bowel diseases.

At a meeting of the Suffolk District Medical Society, a committee was appointed to investigate in regard to the death of Dr. A. A. Gould. Now, what are the facts in regard to this case; simply these: Dr. G. had been on a visit to a patient (not cholera) in Fall River, Mass. While there he ate several pears, and on his way home in the cars ate another lot which his friends had in all kindness undoubtedly loaded him with. Being very fond of that fruit, he went to excess. On arriving home about noon he immediately went to the insurance office where he was examining physician, and in a short time complained of a looseness of the bowels. He then returned home, called Dr. Cabot, and died the next morning. His disease was pronounced "Asiatic cholera," and a post-mortem made subsequently, proved such to be the fact. Now, if cholera is contagious, how is it that not a member of Dr. G.'s household took the disease? How is it that, notwithstanding the body was removed to the church, and in the presence of a crowded congregation, many of them as they passed out laying their hands upon the corpse, and there was one case of contagion? And how in regard to Drs. Swan and Longmaid, who made the post-mortem? These simple questions I leave for your readers to decide, and trust we shall all of us eventually come to some true opinion in regard to this long debated question.

Our different societies are in a flourishing condition; and on Wednesday, November 7th, Prof. C. E. Brown-Séquard is to deliver the introductory lecture of the annual winter course before the Harvard University Medical Department. The class this year, I understand, will be very large; and Old Harvard may well be proud of its talented professors and unsurpassed means for medical instruction.

Yours truly,

JOHN P. ORDWAY, M.D.

THE TREATMENT OF SPINAL DISEASES BY APPARATUS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—In your journal of Oct. 15, 1866, is a description of Dr. Taylor's apparatus for treating Pott's disease. There are a few facts, which as a matter of *history* should be preserved, that the *author* of this new method may receive the credit that may accrue from it.

In the March number of the *American Medical Monthly* for 1856, page 214, in an article upon "Deformities and their Remedies," by Dr. Henry G. Davis of this city, we find the following.

"The common mode of constructing apparatus to sustain the weight of the body upon *crutches, is utterly useless*, as the crutch impinges directly against the bundle of nerves and blood-vessels that meet in the axilla, upon which the weight of the arm even cannot be borne, much less that of any additional portion of the body." The reader will compare this language, published in March, 1856, with the following quotation from Dr. Taylor's paper read in Feb. 1863, before the State Medical Society.

"In all the instruments which I have examined there has been but one idea on which their construction has been based. All of these instruments are made with the one idea of making counter-extension from the hips to the shoulders. From a band around the waist or resting on the hips, some form of *crutches are erected to the arm-pits*, and upon this slight support has all the relief to be derived from instrumental aids depended."

It is possible that Dr. Taylor has never seen this paper, published by Dr. Davis seven years previous, in which he condemns even more decidedly the use of the crutch as a means of support than Dr. Taylor, for he (Dr. Davis) says "it is utterly useless." Again, it is well known to the great body of the profession that Dr. Davis has been treating Pott's disease in this city without the use of the crutch for the last eleven years; and that he was the *first* to discover that it was the irritation produced by the diseased surfaces pressing upon each other, that gave rise to those severe spasmodic or neuralgic pains, and that the separation of the diseased surfaces relieved them. Hence his instruments were so constructed as to use the spinal column as a lever, making a fulcrum both of the spinal column and the instrument at the locality of the disease. This arrangement not only separated the parts, but restored and maintained the figure erect. At this early period, Dr. Taylor *condemned all mechanical appliances*, and relied solely upon motorpathy to restore the form.

Dr. Taylor has followed the principle of Dr. Davis's instrument, without any recognition of his claims to the plan, or to having first discovered the necessity of appliances to accomplish the object indicated by the cause of the pain, viz. pressure of the diseased surfaces upon each other.

It was Dr. Davis who discovered that it was this pressure that produced the pain in all diseases of the joints, and his treatment of morbus coxarius is based upon it.

Yours, &c.,

HISTORICUS.

Obituary.

BREVET BRIG.-GEN. CHARLES S. TRIPLER.

SURGEON U. S. A.

Dr. Charles Stuart Tripler, after a long and eventful career, departed this life, in Cincinnati, Ohio, October 20, 1866. The following general order relative to the death of this estimable gentleman is published to the Army, in which he served so long and faithfully:

War Department, Adjutant-General's Office, Washington, October 23, 1866.

General Orders, No. 89.

The following notice of the decease of a distinguished officer of the Medical Department of the Army, by the Chief of his Department, is published to the Army:

Surgeon-General's Office, Washington, October 23, 1866.

"To the Adjutant-General, U. S. Army—

"Sir—I have the honor to report the death, at Cincinnati, on the 20th instant, of Brevet Brigadier-General C. S. Tripler, Surgeon U. S. Army, Medical Director, Department of the Lakes.

"Entering the Army as Assistant-Surgeon, October, 1830, General Tripler served continuously for thirty-six years, during which time he held, with credit to himself and advantage to the Government, positions of high trust and responsibility, taking part in the Seminole war, the war with Mexico, the occupation of California, and being the first Medical Director of the Army of the Potomac.

"His skilful administration and conscientious discharge of duty has been rewarded by three brevets for 'faithful and meritorious services.' The Medical Corps possesses, in his distinguished career, a bright example of the union of great professional attainments, with the military zeal and pride of an officer, and those qualities which mark the Christian gentleman.

"Very respectfully, your obedient servant,

"J. K. Barnes,

"Surgeon-General."

By order of the Secretary of War,

E. D. Townsend,

Assistant Adjutant-General.

New Publications.

Books and Pamphlets Received.

A Practical Treatise on Diseases of the Skin. By J. Moore Neligan, M.D. M.R.I.A., etc. Fifth American from second enlarged Dublin edition. By T. W. Belcher, M.A., M.D., Dublin, etc. Philadelphia: H. C. Lea, 1866.

A Manual of Medical Jurisprudence. By Alfred Swaine Taylor, M.D., F.R.S.; Fellow of the Royal College of Physicians, and Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. Sixth American from eighth and revised London edition, with notes and references to American decisions. By Clement B. Penrose, of the Philadelphia Bar. Philadelphia: H. C. Lea, 1866.

A Manual of Auscultation and Percussion. By M. Barth & M. Henri Roger. Translated from the Sixth French Edition. Philadelphia: Lindsay & Blakiston. 1866.

Practical Therapeutics, considered chiefly with reference to Articles of the Materia Medica, by Edward John Warring, F.R.C.S., F.L.S., Surgeon to Her Majesty's Indian Army. From the Second London Edition. Philadelphia: Lindsay & Blakiston. 1866.

Medical News and Items.

PERSONAL.

Sir Henry Holland, Physician to the Queen of England, author of "Medical Notes and Observations," etc., is about to visit the United States.

Prof. Syme, the distinguished Scotch surgeon, it is expected will soon be created a British Baronet.

Dr. B. W. Richardson, the discoverer of local anæsthesia by ether spray, whose devotion to scientific research has not been advantageous to his own interests, is the subject of a proposed fund in Great Britain to be raised for his benefit.

Dr. Samuel Logan, formerly Demonstrator of Anatomy and Adjunct Professor of Surgery in the Medical College of South Carolina, has been elected to the chair of Anatomy in the Medical College of Virginia, vice A. E. Peticolas, resigned, to accept a corresponding chair in the New Orleans School of Medicine.

Dr. John Dawson, late Professor of Anatomy in the Starling Medical College of Columbus, died suddenly on the 4th of September last.

Dr. Samuel H. Hall, of Hartford, Conn., died of diphtheria, October 27, aged twenty-nine years.

Dr. Charles Berry Jaques, died in Brooklyn, N. Y., November 2, in the thirty-third year of his age.

Dr. John M. Watson, an alumnus of the College of Physicians and Surgeons, N. Y., Class of 1823, and Professor of Obstetrics in the University of Nashville, died near Nashville, September 19, 1866.

The New York Medical Journal Association celebrated the opening of its rooms, in the "Mott Memorial Building," 58 Madison Avenue, on Monday evening, November 5th. The opening address was delivered by Prof. A. C. Post, who commented in a happy manner upon the advantages growing out of a more intimate professional intercourse and a greater familiarity with the current medical literature.—Prof. F. H. Hamilton, also, during the course of the evening, exhibited his serrated bone forceps, a modification of Liston's instrument.—Dr. Worster, likewise, made a few remarks.

We have the announcement that the Association, during the winter, will hold regular Friday evening reunions, at which digests of all new and important items appearing in the medical periodicals will be presented for informal discussion.

The New York College of Dentistry, Fifth Avenue and Twenty-second street, formally inaugurated its first session, November 5th, by an address delivered by Prof. William H. Dwinnelle, M.D., D.D.S.

New Charitable Institution.—The Commissioners of Charities and Correction have erected a new hospital on Blackwell's Island for epileptics and paralytics. It is in three separate wings, each neatly constructed of stone, and capable of containing and accommodating all the patients that will be likely to be under the care of the Commissioners for many years. The new institution is to be in charge of Dr. Echeverria.

East River Medical Association.—At the Anniversary Meeting, November 6, the following officers for the ensuing year were declared elected: President, Verranus Morse, M.D.; Vice-Presidents, Marvin S. Buttles, M.D., Truman Nichols, M.D.; Secretary, John Shrady, M.D., and Treasurer, Norman Abbott, M.D.

Original Communications.

RESECTION OF UPPER END OF FEMUR.

THE HEAD OF THE BONE CONTAINING A TRUE SEQUESTRUM OF CANCELLOUS TISSUE.

By PROF. FRANK H. HAMILTON, M.D.

Clemence Demnia, æt. thirty, a tailor. During his childhood, when about eleven years old, he had some disease of his right thigh, probably involving the joint, which resulted in suppuration. I cannot learn that any bone ever escaped, only that the disease resulted in permanent anchylosis at the hip-joint, with flexion and adduction of the thigh. The recovery was, however, so complete that the limb never afterwards gave him any trouble except from its deformity.

About seven months ago, without any special provocation, a pain commenced in the right hip, which was speedily followed by swelling and suppuration. The patient affirms that the swelling opened spontaneously five days after it commenced.

I found him in my service at the Charity Hospital, and had him transferred for my own convenience to Ward 16, in Bellevue Hospital. He was much emaciated, and the expression of his face indicated that he suffered constant pain. His thigh was flexed and adducted, and the hip-joint completely anchylosed. Three separate openings existed communicating with the bone, which could be felt rough and denuded. The diagnosis was "disease of the upper end of the femur, probably involving the hip-joint." We had not the data upon which to make the diagnosis more precise.

Upon consultation with my colleagues, Drs. Gouley and Sands, it was decided to make an exploratory incision, and be governed by the result.

The operation was made October 12, 1866, before the class at Bellevue Hospital, the patient being fully under the influence of ether.

Exposure of the bone presented evidence of so much disease as to warrant, in our judgment, the operation of resection. In this operation both Drs. Gouley and Sands concurred.

With the chain-saw, section of the shaft was made about one and a half inches below the trochanter minor, at a point where the bone appeared sound. The head of the femur was then removed from the acetabulum, mainly with the chisel and mallet. After the complete separation of the bone most of the thin layer which remained in the acetabulum was removed by the gouge. It was easy to determine when the gouge reached the acetabulum, by the fact that what belonged to the femur was softer than the acetabulum. At one point the surface of the acetabulum was removed by absorption, and a communication was established with the cavity of the pelvis.

On examining the bone resected, a piece four inches in length, it was found to be suffering under periostitis, ostitis, and endostitis; in consequence of which it was roughened and expanded externally. A small amount of pus was contained within the head and neck; the whole bony tissue was softened, the form of the head greatly changed, and the neck almost obliterated. The only remarkable circumstance, perhaps, was the existence of a perfect cloaca, of about three-eighths of an inch in diameter, situated in front, at the junction of the head with the neck, and communicating with a small cavity in the head of the bone containing a true sequestrum of cancellous tissue. This sequestrum was of a dark color, and saturated with pus. I do not know how often sequestra have been observed in the spongy tissue of long bones by other surgeons, but I have seen them very rarely.

It may be inquired why I should have practised resection when there existed a sequestrum to explain the trouble, and which might have been removed; to which I will reply that I did not know of its existence until after the resection was made. I had indeed discovered the cloaca before removing the bone, and had enlarged it with the gouge and mallet, observing at the same time to Dr. Sands that I did not expect to find a sequestrum, but it might be well to make a search. Having then failed to discover it for the reason that it lay above the opening, the resection was made as the only alternative promising relief, and because it alone would enable us to straighten the limb.

Eleven days have now passed since the operation was made, and the patient is doing well.

SUCCESSFUL REMOVAL OF A LARGE BRONCHOCELE.

By WILLIAM WARREN GREENE, M.D.

PROFESSOR OF SURGERY IN BERKSHIRE MEDICAL COLLEGE AND IN THE MEDICAL SCHOOL OF MAINE.

It is well understood by the members of the profession that extirpation of an enlarged thyroid gland is one of the most fearful operations ever undertaken by the surgeon. While there is always great danger from shock, secondary hæmorrhage, inflammation of the cervical vessels and of the œsophagus and respiratory organs, *the* danger which overshadows all others, hanging like a thunderbolt over patient and operator, is terrible and uncontrollable hæmorrhage; and while each of the other causes has in its turn produced fatal results, the great majority of deaths have occurred from that last named. In fact, so extremely vascular are these growths, both from the great enlargement of the original vessels, and also, in some cases, from an almost infinite multiplication of their branches and anastomoses, that even in small tumors, no larger than a hen's egg, such surgeons as the Coopers, the Bells, Ferguson, Velpeau, and others, have been obliged to abandon the operation; and in more than one instance the patient has died upon the table before the growth could be removed or the bleeding arrested. I have quite carefully examined the literature of this subject, and so far as I can learn, *all* bronchoceles that were ever successfully removed (and there are very few) were small. I am very confident that none were as large as that which I shall describe.

It is in view of the above facts that all surgical teachers of the present day look with great distrust upon any radical procedure for the removal of goitre, and the majority discountenance the operation altogether. I believe that most excellent surgeon, Professor Gross, expresses the views of the profession in general, when, after speaking of the use of iodine and the seton, he says: "When the tumor resists our curative efforts and endangers suffocation, it has been proposed to afford relief by *extirpation*. But the question arises, is such a procedure proper or justifiable? In a word, can the thyroid gland, when in a state of enlargement, be removed with a reasonable hope of saving the patient? Experience emphatically answers—no! This conclusion is not invalidated by the fact that the operation has, in a few instances, been successfully performed. By no means. It only proves that an undertaking may occasionally be accomplished under circumstances apparently the most desperate. But no sensible man

will, on slight considerations, attempt to extirpate a goitrous thyroid gland. Should a surgeon be so adventurous or foolhardy as to undertake the enterprise, I shall not envy him his feelings while engaged in the performance of it, or after he has completed it, should he be so fortunate as to do this. Every step he takes will be environed with difficulty. Every stroke of his knife will be followed by a torrent of blood, and lucky will it be for him if his victim live long enough to enable him to finish his horrid butchery. Should the patient survive the immediate effects of the operation, *if this it may be called*" (the italics are mine), "death will be almost certain to overtake him from secondary hæmorrhage, or from inflammation of the cervical vessels, œsophagus, and respiratory organs. When the tumor is large, the wound is of frightful extent, involving all the most important and delicate structures of the neck, and rendering it altogether improbable, from the constant motion of the windpipe and œsophagus, that much of it will unite by first intention. Thus, whether we view this operation in relation to the difficulties at-

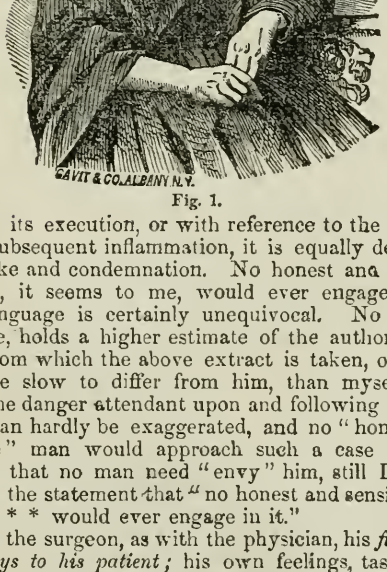

Fig. 1.

tending its execution, or with reference to the severity of the subsequent inflammation, it is equally deserving of rebuke and condemnation. No honest and sensible surgeon, it seems to me, would ever engage in it." This language is certainly unequivocal. No man, I presume, holds a higher estimate of the author of the work from which the above extract is taken, or would be more slow to differ from him, than myself; but, while the danger attendant upon and following the operation can hardly be exaggerated, and no "honest and sensible" man would approach such a case without feelings that no man need "envy" him, still I cannot endorse the statement that "no honest and sensible surgeon * * * would ever engage in it."

With the surgeon, as with the physician, his *first duty is always to his patient;* his own feelings, tastes, and anxieties for reputation are all secondary. He professes to carry to his patient all the means of relief known to the profession; and I have always held, as I now do, that in those extreme cases where speedy death is *inevitable* on the one hand, and on the other operative procedure offers a chance of life, and the patient, *understanding all the facts*, elects the operation, it is the duty of the surgeon to give him that chance. No matter how small it may be, so long as we know that we are exchanging a certainty of death for a possibility of life, the rule is the same. Unless a surgeon takes this position, it seems to me that he is constantly tempted to shirk responsibilities, either from timidity, fear of the public tongue, or a consciousness of inability to do what can be done. I cannot express my own feelings when I hear a man who professes to be a surgeon excusing himself for not giving his patient the only chance, because he was afraid if he "operated and the man died, it would make a great deal of talk, and he had better die on his own hook." Any man who has not the moral courage to rise above all personal considerations at the bedside of him who throws all his earthly interests into his hands, and to do for him *all that can be done*, or, should he feel himself incompetent, to say so honestly and at once secure efficient aid, has no business in our profession, or any other position of trust and responsibility. Suppose we could name fifty or a hundred cases like the one here reported, or as nearly like it as cases ever are, and that out of as many operations only one was saved, nothing is lost; for to those who died, immediate destruction was inevitable without interference; but in the fiftieth or hundredth case you have saved a devoted wife and mother to her family, and a noble woman to the world.

I have been repeatedly asked by patients, as has

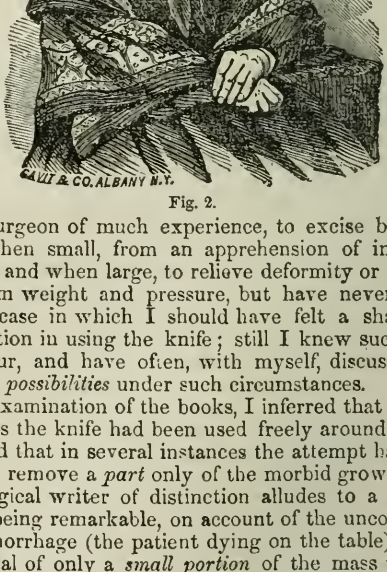

Fig. 2.

every surgeon of much experience, to excise bronchoceles, when small, from an apprehension of increased growth, and when large, to relieve deformity or discomfort from weight and pressure, but have never before seen a case in which I should have felt a shadow of justification in using the knife; still I knew such cases did occur, and have often, with myself, discussed the surgical *possibilities* under such circumstances. Upon a careful examination of the books, I inferred that in most instances the knife had been used freely around the tumor, and that in several instances the attempt had been made to remove a *part* only of the morbid growth; and one surgical writer of distinction alludes to a case of this as being remarkable, on account of the uncontrollable hæmorrhage (the patient dying on the table), when a removal of only a *small portion* of the mass was attempted. Now, each lobe of the thyroid gland is supplied by two arteries usually, sometimes three; no matter how large the goitre, these arteries, however much enlarged, are found entering *the base* of the tumor into which they pass, and their branches ramify through its substance, comparatively few arterial vessels being found upon the surface, which is covered with a network of veins, oftentimes of large size, having extremely thin, delicate walls, and which inosculate freely with those in the substance of the gland. It had occurred to me that in the event of wounding these superficial veins, it might be useless to undertake to ligate them, they are so tender, and operations might have failed which would have otherwise succeeded, from the at-

tempt to control the hæmorrhage completely during the dissection, in which the knife was perhaps too freely used; and that it was worse than folly to remove a part of a lobe, as almost invariably we should thus open scores of vessels whose bleeding would be uncontrollable. I believed that if they could be removed at all, it must be accomplished by keeping clear of the tumor as far as possible, and rapidly pushing down to the pedicle, which consists mainly of vessels and areolar tissue.

On the 19th of August last Mrs. Klopf, aged forty-five, a highly respectable and intelligent German lady, residing in Albany, N. Y., consulted me for an enlargement of the right lobe of the thyroid gland; there was a slight enlargement of the left side. She first noticed the tumor twenty-six years ago, but it had never given her any trouble until within a year and a half, during which time it had rapidly increased to its present size. Its dimensions were now such that the common carotid was crowded behind the posterior edge of the sterno-mastoid muscle, where its pulsations were distinctly felt, and the trachea was pressed firmly to the left side. So great was the pressure upon these organs and the œsophagus, that any attempt to swallow or talk gave her terrible spasms of dyspnœa. She was unable to lie down, and required constant watching during her broken sleep, lest she should die of suffocation. She suffered very much from headache and giddiness, and could not stoop without losing her consciousness. All these symptoms had been for two months rapidly increasing in intensity, and for two weeks almost a daily aggravation had been noticeable. She had recently consulted the leading surgeons of Albany and some other cities in New York, all of whom told her that nothing could be done. At my request my colleagues, Professors Ford, Palmer, and Storer, and Drs. Smith, Brewster, and others, examined her; and all agreed that a few days at most would terminate her existence, while the thread was liable to snap at any hour. The patient was already aware of her imminent danger, and her only question was as to the *possibility* of relief. I told her in all probability the removal of the growth would be found impracticable; and that even if she survived the operation, which was not likely, the chances were a hundred to one that she would die of secondary affections; but still there was a bare possibility of success, and that while I would by no means advise an operation, yet if she, being fully aware of all the facts, insisted upon taking this desperate chance, I would undertake the removal of the tumor. I was happy to have my own views as to the propriety of this advice endorsed by Dr. Storer. She immediately decided upon its being done, and at once. Accordingly, in the presence and with the assistance of Prof. H. R. Storer, Dr. F. K. Paddock, and several students, I made the operation in the following manner: the patient, being etherized, was placed in the ordinary position for ligation of the carotid, and a single straight incision was made over the tumor, extending from the inferior maxilla to the clavicle. The anterior external jugular vein, which ran close by the line of the incision, was not injured. The sterno-mastoid, which was spread over the mass like a thin riband, and the several fasciæ, were successively divided upon a grooved director, and the areolar tissue with the knife and fingers, the handle of the scalpel being employed much more freely than the blade. On raising upon the director the little thin layer of fascia immediately investing the tumor, several veins were wounded and bled profusely; this was controlled by the fingers of an assistant, and the delicate envelope carefully reflected from the gland; but although this was done with the utmost caution and gentleness, several other veins were ruptured. I now found that the entire growth was completely covered with a network of these vessels; and so thin and tender were their walls that the forceps tore, and the ligature cut their coats; and now, although the blade of the knife had not touched the surface of the tumor, so many of these veins were opened, that in spite of all the pressure that could be made the hæmorrhage was fearful. I now rapidly separated the areolar attachments, and in a few seconds was at the pedicle, which I found containing three large arteries whose pulsations were very distinct, and which were my guides for dividing the pedicle into three parts, which I also accomplished with the fingers. I immediately tied each third with a ligature composed of eighteen strands of saddler's silk, *saturated* with wax and *loosely twisted.* As I drew the last cord all hæmorrhage instantly ceased. The pedicle was carefully divided close to the goitre, and it removed. During the dissection I found at one point the tumor quite firmly adherent to the sheath of the vessels; and while separating it, a gush of venous blood indicated the rupture of a large vessel. The finger of an assistant controlled it until the ablation of the bronchocele, when examination proved the internal jugular to be wounded. This was tied with a ligature of three strands of silk loosely twisted; no other vessels needed interference. The entire operation occupied twenty-two minutes.

After carefully sponging the wound and allowing the surface to glaze somewhat, the edges were united by interrupted sutures, water-dressing applied, and she placed in bed. The extremities were cool, and pulse feeble but regular, and less than ninety per minute. She reacted nicely, and passed a more comfortable night than she had for weeks. The after-treatment consisted in perfect quiet, water-dressings when agreeable, anodynes *pro re nata;* the exhibition of muriated tincture of iron, twenty drops every four hours, and as much rich broth, gruel, and milk as she would take at regular intervals. For several days there was considerable irritation of the œsophagus and trachea, but not enough to interfere seriously with deglutition or respiration. This passed away, and she recovered without a bad symptom. The last ligature came away on the twenty-sixth day; in another week the wound was entirely healed, and she is now in perfect health and restored to a happy family.

Figure 1 gives the appearance of the lady before, and Figure 2, after the operation.

The weight of the tumor was one pound nine ounces avoirdupois.

PITTSFIELD, MASS., Nov. 10, 1866.

LARYNGOSCOPY.

BY J. SOLIS COHEN, M.D.,
OF PHILADELPHIA.

No. V.

DEMONSTRO-LARYNGOSCOPY.—THE EXHIBITION OF A PATIENT'S LARYNX TO OTHERS.

THE examiner has frequently occasion to exhibit the condition of a patient's larynx to one or more persons, either for purposes of consultation, or for those of demonstration. This is demonstrative laryngoscopy, and has been termed by Dr. Morell Mackenzie, of London, recipro-laryngoscopy; and it is often quite difficult of satisfactory execution.

A second person—and the difficulty is obviously increased as the number of observers becomes more numerous—in order to see the image which the first observer is examining, must look by the side of the observer's head, or over his shoulder; consequently his angle of vision being different, he cannot see the rela-

tions of the image exactly as they are being described to him; and the operator, in moving his own head a little aside in order to afford this second observer a better view, can hardly avoid changing the position of the mirror a little, and it will then reflect parts which are not being designedly demonstrated, while other parts of the structures will be entirely beyond the field of reflection.

To overcome this difficulty, and learn how to manage the mirror and one's head, so that those about the observer can be enabled to see distinctly the image of any particular portion of the parts which it is desired to demonstrate, requires a great deal of practice, and often, in addition, peculiar capabilities; for, owing to a law of physics, from the narration of which, to borrow the expressive phrase of Semeleder, "we will spare the reader," the second observer cannot simultaneously with the demonstrator see the whole of the image which is being explained to him.

It must also be remembered in making a laryngoscopal demonstration that, as with the beginner's early use of the microscope, persons unaccustomed to the employment of the laryngoscope, and not sufficiently familiar with the regional anatomy of the larynx so as to know the character of normal image that should be perceived in the different portions of the mirror, will fail to recognise all that is pointed out to them, although it may be distinctly visible. Experience in viewing laryngeal images is therefore highly necessary before abnormal alterations and pathological conditions can be detected.

Demonstro-laryngoscopy rarely affords as satisfactory a demonstration as auto-laryngoscopy, because the larynx of a patient cannot be brought under that amount of control which the auto-laryngoscopist's self-interest prompts him to acquire; besides which, in a patient, the normal relations of the part may have become so altered by disease as to render a satisfactory demonstration impossible to those themselves unable to handle the laryngeal mirror with the skill of an expert.

The writer finds placing a hand-mirror in the grasp of a patient a good method of demonstro-laryngoscopy; and also placing a toilet-mirror by his side at the proper height. Then, several individuals standing behind the patient, can see the image he sees himself in the mirror in his hand, while others looking past his head or over his shoulders can see the image in the toilet-mirror. In the office of the writer, the examining table is placed directly in front of a book-case in whose doors are panelled mirrors. The observer sitting in front of these mirrors, his back towards them, the examination is conducted in the method previously described, and several standing at either side of him see the direct image, while a number standing behind the patient see the reflected operation in the mirrors of the book-case; in viewing which, the parts being twice reflected, are not seen inverted as in viewing the direct image. If, in addition, a mirror is placed by the patient's side, and another in his hand, a still larger class can witness the same demonstration. In addition to all this, if one of a third party of two, three, or four, standing on the left side of the patient, at whose right is stationed the illuminating apparatus, take in his hand a large laryngeal mirror and hold it obliquely before the patient's mouth, on his right side, in such way that it receives light reflected from the laryngeal mirror within the mouth, he too, and two or three at his side, can see the laryngeal image distinctly, without interfering with the other observers. In this way a demonstration can be made at the same time to quite a large class. The extra-laryngeal mirror intended to be held obliquely in front of the patient's mouth, may be permanently attached to the illuminating apparatus by means of a little arm similar to the attachment of Tobold's reflector. As this mirror, too, will become dimmed by the halitus of the breath when held quite near the mouth, it must be heated or otherwise prepared, to prevent condensation of moisture on its surface. When held by the hand from the opposite side, the stem must be placed undermost, so that it be out of the way of the first laryngeal mirror, and beneath it when the latter has been passed to the pharynx.

To a teacher of laryngoscopy, the employment of the second laryngeal mirror in this way will enable him to watch and direct the movements of a pupil much more accurately and satisfactorily than by any other method with which the writer is acquainted; while at the same time he will see the same image which is being examined in the mirror in the mouth, and be entirely out of the way of the operator's movements.

Dr. Smyly of Dublin has contrived an apparatus for demonstrating to others the larynx of a patient. He uses one of Weiss's frontal bands to which is attached by a split tube a perforated reflector that is placed over one eye. Attached by a second split tube to a brass rod bent at an angle of 45° is a small square plane glass mirror set in brass, that is placed in front of the other eye; and those observers standing behind the patient see the reflected image in this square mirror. This apparatus is somewhat clumsy and awkward for the operator, necessitating considerable familiarity with its use for its satisfactory employment.

INFRA-GLOTTIC LARYNGOSCOPY, OR TRACHEOSCOPY.—TRACHEAL LARYNGOSCOPY.—EXAMINATION THROUGH A WOUND IN THE TRACHEA OR LARYNX.

Dr. Neudörfer (*Wiener Zeitschrift für prakt Heilkunde, Nov.* 12, 1858) was the first to conceive the idea of examining the laryngeal and tracheal structures by means of a mirror passed through the wound left after laryngotomy or tracheotomy, and demonstrated its possibility on the cadaver. Fortune very appropriately favored Czermak, the great promoter of this whole art, who soon after, early in 1859, proved the practicability of this method of examination upon the person of a living patient, Von Bruns, of Tübingen, followed in March of the same year, since which time the records of many cases have been published.

In this manner the deeper structures of the trachea can be more minutely explored, and we are also enabled to inspect the lower surface of the vocal cords—an examination otherwise impracticable. This method is, of course, of very limited application from paucity of subjects; but in the laryngeal or tracheal troubles of patients whose parts have been opened, it affords an addition to our means of diagnosis of which we are bound to avail ourselves. It very often happens that pathological changes following the operation of tracheotomy or laryngotomy will prevent by tumefaction, or contraction from cicatrization, the possibility of obtaining a good view into the parts from above, and consequently prevent a strictly local application to any desired spot. Under such circumstances we have the advantage presented of being enabled to introduce instruments under sight, through the external opening.

The presence of the ordinary curved tracheotomy tube will prevent this examination. The introduction of a canula with a long fenestrum in its upper surface will permit the introduction of a mirror; or a short plain, straight tube may be employed; or the edges of the wound may be kept apart by a two-leaved ear speculum, or by hooks attached to a ribbon passing round the back of the neck from one side to the other. The best mirrors for an examination of this kind are those made of thin plates of polished steel; because, as they

are necessarily exceedingly small, we thereby avoid the loss of reflecting surface which would be caused by even a narrow setting. The shape of the mirror may be round or oval. The stem of the mirror must curve strongly downwards from its reflecting surface, so that when introduced within the tube, the handle will be considerably below the opening in the structures. The best results are obtained by direct sunlight; and when artificial light is employed it must be reflected horizontally through the axis of the wound to the posterior wall of the tube. As the mirror dims much more quickly than when held in the pharynx, and heating it in the ordinary mode would necessitate its almost momentary removal, it is best to protect its surface by spreading over it a delicate layer of gum-water, sugar and water, glycerine, or dissolved caoutchouc. It must be expected to find respiration impeded by the pressure of the mirror in the respiratory tube. There is great irritability of the structures from the contact of a foreign body, which renders the operation by no means a sinecure; besides which, difficulties will often be encountered from pathological changes which may have followed the surgical operation.

In this manner we can examine the lower surface of the true vocal cords; the posterior wall of the larynx and trachea; the lower attachment of the epiglottis, its laryngeal surface from the point of insertion all the way to its free border; the anterior face of the arytenoid cartilages—light being thrown through the glottis, when opened, clear on to the pharynx and velum.

In the ordinary laryngoscopal examination we see the vocal cords of a pearly white color. In infra-glottic laryngoscopy we find the lower surface of these cords to be reddish in color, as is the whole mucous membrane of the larynx; so that sometimes the cords can be recognised as such only by their movements.

Dr. Semeleder, of Vienna, has reported a series of auto-infra-glottic examinations observed by a medical gentleman. "A physician from abroad was taken sick with typhus, which led to perichondritis laryngea; after laryngotomy and the discharge of a piece of necrosed cartilage, he was so far cured that he could attend to his business; but he was obliged to wear the canula for an indefinite period. He was often examined by the laryngoscopists of Vienna; but a view of the glottis from above was impossible, and even the apices of the arytenoid cartilages were seen very imperfectly and with much difficulty, from the decided and unyielding depression of the epiglottis; nor could the glottis be seen from below, as a fold of œdematous and inflamed mucous membrane closed up the window of the canula. After the repeated removal of small portions, and frequent cauterizations, it was finally determined to leave this fold to itself; after a while it vanished, and the glottis could then be seen from below in its whole extent, manifestly constricted, but still quite movable. By an application of Czermak's self-observing apparatus, so that the cone of light should fall above the laryngeal mirror, it was possible for the patient himself to examine the glottis from below. This patient also gave occasion to numerous improvements and alterations of the canula, so that it was adapted to use in speaking."

RHINOSCOPY.

By passing the laryngeal mirror behind the uvula and soft palate, and turning its reflecting surface upwards, we are enabled to throw light into the posterior nares and examine their structures and the parts adjacent to them, performing what is known as rhinoscopy.

In this way we obtain an image of the posterior surface of the palate, the nasal septum, the turbinated bones and nasal fossa, and the entrance into the Eustachian tubes. The mirrors must be bent rather more towards a right angle, and sometimes at a complete right angle, or the image of the superior portions will be too much foreshortened. Sometimes it is necessaryl to raise the soft palate by means of a hook, and pul it forwards, in order to obtain a sufficient space for the mirror; otherwise it may become necessary to employ small mirrors of five-eighths of an inch, or half an inch in diameter, and pass them up alternately on either side of the velum, thus examining each side separately.

The light should be directed rather lower in the fauces than for purposes of laryngoscopy, and the patient must breathe through the nose, or make what are called nasal sounds, so as to keep the palate off from the pharynx; for in breathing through the mouth the soft palate applies itself against the posterior wall of the pharynx so closely as absolutely and literally to blockade completely the passage from the mouth to the nasal cavities.

The application of the rhinoscopal mirror produces an unpleasant sensation, in describing which no more expressive term can be selected than nasty; and consequently the number of examinations successful at the first interview are much less than in laryngoscopy. It also becomes more frequently necessary to depress the tongue with a spatula to increase the pharyngeal space and prevent the tongue from rising. It is also more frequently necessary than in laryngoscopy to educate the parts to bear the presence of the mirror, by touching them frequently with the handle of a tooth-brush, a palate-hook, or some substitute.

The method of Auto-Rhinoscopy, or examination of one's own posterior nares and adjacent parts, does not differ materially from that of auto-laryngoscopy, except that the plane mirror should maintain a rather more perpendicular position, and should be preferably attached to some support, inasmuch as both hands are occasionally required to manage both mirror and palate-hook.

The nasal cavities can sometimes be very well examined anteriorly by pressing the tip of the nose up, and separating the nostril from the septum either by the fingers or a two-leaved ear speculum, or the ordinary tubal ear speculum, or some substitute. In this way we can sometimes see as far as the posterior wall of the pharynx, and examine the condition of a large portion of the structures. Czermâk reports having once seen the openings of the nasal ducts. Other observers have distinguished the entrances into the Eustachian tubes. Sometimes a speculum is introduced through one nostril and the examination made through the other.

In addition to the value of rhinoscopy as an aid to the diagnosis and treatment of various affections of the nasal cavities, it possesses a most valuable interest for the aural surgeon, who is thus enabled to examine the regional anatomy of the parts previous to catheterization of the Eustachian tube, and to verify the successful introduction of the catheter.

ŒSOPHAGOSCOPY.

It was very natural that the success attending the examination of the larynx should have suggested the feasibility of examining the œsophagus; and attempts have been made accordingly in this direction, and with a certain amount of success, by Lewin of Berlin, Semeleder of Vienna, and Voltolini of Breslau.

There are great anatomical obstacles to the performance of œsophagoscopy. The larynx and trachea, being cartilaginous in structure, are open tubes; the œsophagus, on the contrary, is a flaccid tube, only opened when an object is presented for entrance; and in making

a laryngeal examination, its opening, or rather place of opening, is seen in the laryngeal mirror as a transverse groove or furrow beneath the arytenoid cartilages at the place of junction of the cricoid. In addition to the laryngeal mirror, it becomes therefore necessary to dilate the tube with a speculum or appropriate forceps, an operation at once suggestive of complication and difficulty. The best description of this operation is that of Semeleder, who has not only practised it upon patients, but has also made a series of instructive experiments upon himself in the presence of distinguished laryngoscopists, for the purpose of demonstrating the value of the operation and studying it thoroughly. It is said to be perfectly feasible, after more or less effort, to explore an inch or two of the œsophagus; but one or two cases are on record in which, examination being made after inserting a stomach-tube of proper dimensions, light was thrown down its entire extent, so as to reveal the condition at the cardiac orifice of the stomach.

Surely Bozzini, of Frankfurt a. M., was not as silly as the medical faculty of Vienna themselves were, when in 1807 they publicly derided his invention of a "Light Conductor for the illumination of the internal cavities and inclosed spaces of the living animal body."

Original Lectures.

INFANTILE CONVULSIONS.

A LECTURE DELIVERED DURING THE REGULAR TERM IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE, NOV. 1866.

By GEO. T. ELLIOT, Jr., M.D.,

PROFESSOR OF OBSTETRICS AND THE DISEASES OF WOMEN AND CHILDREN.

Gentlemen—There is nothing better adapted to alarm a family than the occurrence of convulsions in one of its members, and there is no disease for which medical aid is more earnestly and imperatively sought. While convulsions are comparatively rare in adults, and are then so often associated with conditions which foreshadow their occurrence, or promptly explain their meaning; infantile convulsions, on the other hand, are so frequent, that you will all witness them soon after the commencement of your practice: while there exists among the people, and perhaps among many physicians, too great reliance on active routine treatment, applied on general principles, and before an effort has been calmly made to appreciate the cause of the convulsion.

It will be my object, in this lecture, to present the topic in such a light that the student may feel that his duty is best discharged to his little patient, if he regard the convulsion as an algebraic exponent of conditions which he may hope to value; if he regard the convulsion as the x in the equation which he is called upon to solve.

Convulsions may be defined as involuntary and non-coördinated movements of the muscular system. They offer every degree of severity, from that which can be recognised by the expert, to that which cannot fail of appreciation by all. The abolition of consciousness is the law, but is not essential; and there is some reason for believing that it may occasionally exist among children to a greater extent than would be expected by the observer.

Classification is not always possible during life, or even after death; nor can a classification be made which will stand for ever. The advances made in physiology and pathology have already demonstrated this fact, and guarantee similar changes in the future. We stand on the threshold of knowledge regarding the influences on the blood and nervous system of deranged secretions and retained excretions. We have recognised within the last few years that the significance of many convulsions can only be seen in the light of these researches. Thus the relations of albuminuria to convulsions are clear to-day; soon new groups may be as distinctly revealed.

They may be designated as essential and symptomatic, in accordance with our appreciation of their cause; and thus, with the progress of science, the tide sets from the former to the latter, and the essential convulsion of to-day may be the symptomatic convulsion of to-morrow. An essential convulsion for the beginner may be symptomatic for the expert. They may be general or partial, in accordance with the number and location of the muscles affected; and when you know that not only the muscles of relation, but all the muscles of the body are liable to be affected, you see how serious may be the influences of spasm of important muscles, which do not move the head, trunk, or extremities, but affect the circulation and the respiration. And hence the popular apprehension of "inward fits" is founded in some justice, because of these conditions, and because these imperfectly exhibited convulsions most frequently attract attention in the progress of fatal diseases at a time when much exhaustion has been brought about. They may be tonic or clonic, in accordance with their duration.

Since, then, these convulsions vary so greatly from each other, the description of one will not serve for all; but the most fully developed may be selected as a type. They may be preceded by conditions which may lead us to anticipate their occurrence, as in certain diseases, or in highly excitable conditions of a preternaturally sensitive nervous system; or they may occur without warning when the child seems well and happy; or in the progress of diseases not suggestive of special predisposition.

In the typical convulsion—or eclampsia—of infancy, the child is apt to display, at first, some stiffening of the muscles of the body. This rigidity may affect them all, or partially, or certain sets of muscles; and in accordance with this result there may only be a fixedness of gaze, or a rigidity of the whole body, or a tendency to rise in the bed, or the well marked curvatures of the body may appear, to which the names of emprosthotonos, opisthotonos, or pleurosthotonos, have been given. The respiration ceases for a time, or is markedly diminished in frequency. Presently convulsive movements of the body commence, extension and flexion are performed rapidly, and as though urged by the shocks of a powerful battery, the rigidity and tension of the muscular fibre being shown in the rapidity and force of its movements. Coördination is lost; the muscles act for themselves; sets of muscles which combine for a common purpose in health act independently of each other now. The eyes move in different directions. The facial muscles are distorted, and the expression changes with proportionate rapidity. The respiration is irregular, unequal, greatly diminished in frequency, or dangerously imperilled. The cutaneous circulation presents degrees of congestion in direct ratio with the impediment to oxygenation. A period of repose may follow, the face grow paler, the limbs relax, the head fall easily on the pillow, the muscles lose their tension, the labored respiration be relieved, and so the convulsion cease; or, after a brief moment, the whole phenomena may reproduce themselves with varying degrees of severity. I have seen the legs and pelvis lifted from the bed. During the interval consciousness may return, and the next convulsion may recur in minutes, hours, days, or months, or it may never happen again. Other things being equal, the greater the severity, the longer the duration, the more

frequent the repetition, the less the restoration to consciousness and motion, the greater the danger. These children are said "to work during the fits," and their frail organizations cannot stand the hard labor which a long continuance and recurrence of the attacks demands. The tendency to death by exhaustion may be seen in the diminished muscular contractility, and is readily felt to be a danger.

Consciousness is not lost in all infantile convulsions, and may coëxist with those of great severity. It may even be retained in those of adult life where there is every outward appearance of its abolition. I have published a case in a puerperal woman, neither hysterical nor a malingerer, not associated with disturbance of the kidneys, where I could scarcely believe that the consciousness existed, until I had carefully satisfied myself by the delicate test of slightly touching an eyelid during the attack. We cannot facilitate our diagnosis of this fact by the statements of these little ones.

The final and the most natural termination of a severe convulsion is sleep, when the exhausted nerves and muscles are refreshed, and when—as has been so ably shown by Dr. Hammond in his work on "Wakefulness"—the cerebral circulation falls to the minimum of health, and thus the congested vessels are physiologically depleted.

We may now consider the prominent causes of these convulsions, as these suggest the diagnosis and indicate the treatment in the great majority of cases.

1. The proximate cause of their frequency at this time of life is to be found in the greater relative size of the brain and spinal cord.

2. Hereditary influences are recognised by all observers. The history of the other children in the family, and of the infancy and development, nutrition, habits, and diseases of the parents, may suggest the probability of tubercular deposit, of epilepsy, of an unduly excitable nervous system, of the mysterious influences believed to be exerted on the offspring by the intoxication of the father at the time of procreation.

3. External influences.—If a few hours or a few days have elapsed since the birth, the character of the labor is to be inquired into; nor is it sufficient that the labor shall have been natural. The depressions of the skull, the fractures, the extravasations which I have already described and shown in the neonatus, are to be remembered; and it is to be borne in mind that they occur in cases sometimes where there has been, to all appearance, an easy labor. The extravasations may indeed have occurred before the labor commenced.

The influences from irritation of the sensitive skin are to be considered; pain from any cause; too tight a dress; the pricking of pins; foreign bodies in the nose, ears, or elsewhere. I know nothing more illustrative of the careful examination into these cases by the accomplished diagnostician than the case of the child seen by Trousseau and Blache, where, carefully searching for the cause of the convulsions, they saw a thread in the hair of the head, and, drawing upon it, found that it was attached to a needle which had penetrated the brain. When the needle had been withdrawn the convulsions ceased.

When the children are older, rachitic diseases and malformations of the cranial bones must receive attention, just as the shape of the new-born head may become the subject of careful consideration. The younger the child the greater the effect of too much noise, too bright light, too great heat, and foul air. The well known experience of the Dublin Hospital, which I have detailed to you, is most remarkable in this last relation. Infantile convulsions often cease when any one of these disturbing causes is withdrawn.

4. Diminished supply of blood to the brain, anæmia, syncope, hæmorrhage, fright, mental shock.—The progress and decline of any exhausting disease or visceral inflammation suggest themselves in this category.

5. In the place of a chill.—Paget has truly said that a well marked chill is a convulsion. In infancy the ordinary phenomena of a chill are liable to be replaced by a convulsion. Hence the periodic convulsion, in a malarious district, with intervals of health and absence of other phenomena, indicates an anti-periodic treatment. And thus the initial chill in pneumonia, in eruptive diseases, and so many other conditions, may be represented in infancy by a convulsion. The recollection of this fact teaches us caution in our diagnosis and prognosis; inclines our minds to an expectant rather than to "heroic" treatment; suggests the advisability of saving these little patients' strength for later developments. Nor, if contingent developments do not occur, can we claim that the disease has been "jugulated," because the chill which often occurs in adult life is not followed by sequelæ; that which may be defined by the popular term "nervous chill," is also represented in infantile convulsions which are not followed by fever, and leave the organization as undisturbed as the ripple leaves the water. Still, even in these cases, a predisposition has been shown; and the rules of hygiene must be even more sedulously obeyed than before.

6. In the place of delirium.—In the progress of visceral inflammations, and in conditions not clearly traceable to recognise poisons in the blood, where delirium might occur in the adult, the infant may be convulsed, as the result of too great mental strain.

7. Independently of this specially increased liability to convulsions just stated, the infant is more liable to convulsions from toxæmic influences which we can appreciate in our present state of knowledge, or from conditions assignable with probability to these influences, or in which we may suspect their existence. Thus the exanthemata, scarlet fever, measles, small-pox, in their invasion, progress, decline, and sequelæ, are prominently related to these seizures. It is claimed by some that convulsions in the invasion of small-pox are of comparatively favorable augury. Albuminuria, doubtless cholesteræmia, icterus, and pyæmia, rank in this category.

8. Faulty oxygenation.—In epilepsy and well marked epileptiform convulsions, the deepening color of the face and body, the purple lips, the congested eyes, betoken the approach of that period when the convulsion is about to cease, and the anxiously awaited inspiration to announce its close. But the persistence of conditions which interfere with oxygenation, and *thwart the respiratory need*, is capable of causing convulsions. The tremulous quiver, or the slight convulsion of the limbs in pelvic presentations, which may be witnessed in some cases of death from pressure on the cord, is due to this cause. They die as the strangled man dies—the imperfectly oxygenated blood is no longer a normal stimulus to the capillaries, the heart fails to force the current on, it becomes over-distended, its force diminishes, its contractions are recognised as slower by auscultation in some cases, by touching the cord in others; the convulsive movement may occur as in the man suspended from the gallows, and the life is lost. And so in croup, in capillary bronchitis, broncho-pneumonia, atelectasis in malformations which affect the respiration, and in the results of intra-uterine diseases and influences, as in pleuritic or peritoneal effusions which will not allow the lungs to be expanded; in endocarditis, which has spoiled the valves and forbids the weakened organ to stand the strain of extra-uterine life—in all these conditions which deprive the blood of

its oxygen, convulsions may occur as a consequence. The convulsions which are met with in the prolonged "holding-breath spells" of infancy, and paroxysms of hooping-cough, may come in this category; but those which occur in the beginning of these seizures acknowledge other influences.

9. Abuse of medicinal agents. Over-dose or mistaken use of opium (a danger which the beginner must never lose sight of), belladonna, strychnia, or stramonium. Children who run about are most liable to the latter at a time when they can pick the seeds in the garden. One such case occurred under my care in the Nursery and Child's Hospital when it was situated in the Sixth avenue, between Fourteenth and Fifteenth streets. Observation and inquiry into the child's behavior and whereabouts during the day detected the plant, and indicated the treatment, which was successful.

10. Irritations within the alimentary tract. From dentition. This is the cause to which so many of these convulsions are unhesitatingly assigned, to the entire satisfaction of family and friends. My friend Dr. Jacobi has forcibly alluded to this fact in his learned and suggestive book on "Dentition and its Derangements." Undoubtedly, the eruption of the teeth is frequently the peripheral irritation which gives rise to the convulsion; undoubtedly, in very many children, the appearance of each tooth may be preceded and attended by febrile symptoms, by bronchial or gastro-intestinal catarrh, and even by convulsions. Undoubtedly the gums should be scarified if they are much congested, swelled, and stretched over the advancing tooth; and this is specially indicated in cases when the molar teeth are the source of the irritation. Nor can a moderate scarification do harm, even when unnecessary, if there be no hæmorrhagic diathesis, or if the incision be not made with unnecessary depth over the tooth that is not yet prepared to peer above the gum. I believe that the great evil of this tendency to fasten the attention on the teeth, is to be found in the wide-spread conviction that our duty is performed if we have lanced the gums, given a bath, and a cathartic, with cold to the head, and sedatives, though the careful effort to search for the meaning of the convulsion by a process of thorough scientific diagnosis by exclusion has been omitted. Recognise dentition as one of the causes of convulsions, weigh the symptoms, examine the gums carefully; but do not allow popular prejudice to assign these conditions to higher rank and wider influence than they merit.

Retained excretions are to be inquired after. Constipation; retention of the meconium in the new-born. The evidences, or the grounds for belief, that indigestion exists, and that indigestible substances have been retained in the stomach or intestines, are to be considered. Little babies carry everything to their mouths; they pick up things from the lap, the floor, and from tables, which were never intended for them, carry them all to their lips, and may swallow them if they can. Foreign bodies may be given them with evil intent, or possibly by a hysterical nurse under the influence of those singular mental conditions that are but a step removed from lunacy.

My friend Dr. Foster Swift saw a baby, aged three months and a half, with successive attacks of colic and mild convulsions with opisthotonos. During the illness the nurse left. Two weeks after the first attack, during which the colic and convulsions had recurred at intervals, the child passed six ordinary pins, all of which were much corroded except one. The mother and a friend were present when four of them were found in the diaper, and two more were seen protruding head downwards in the anus.

Locock administered an emetic to a child, and brought away raisins eaten eight days before. Guersant and Blache, in a case where the convulsions had lasted for nine days, caused them to desist immediately when the patient had vomited a piece of omelette and some gooseberries.

Convulsions may occur in the progress of diarrhœa and dysentery, from the peripheral irritation, from pain, from debility. They may occur in hernia, and in the progress of the inflammatory and obstructive conditions which attend true intussusception. I have more than once known them to depend on ascarides alone; they may be due to lumbricoids. Innocent as these parasites generally are, they may awaken much intestinal irritation, and they may travel beyond their appropriate limits. They may be vomited; and a recent number of the Dublin *Quarterly* gives an interesting account of a case in which a lumbricoid literally wormed its way into the trachea before death, with a plate of its appearance *in situ* at the autopsy. I recall an interesting autopsy of a fatal case of peritonitis with effusion in infancy, in the practice of a friend, where a solitary lumbricoid was seen fitted into the appendix which was quite straightened and thoroughly vermiformis. I would not, however, say that the lumbricoid might not have extricated itself had life continued. I do not know whether it provoked the peritonitis, nor do I know what did provoke the peritonitis in the case. Its whole advance had been so insidious that its existence had not been diagnosticated, and it is not impossible but that it may have been due to the lumbricoid.

11. Epilepsy. The diagnosis of this will demand the exclusion of other conditions, and the recurrence of the manifestations beyond the period of infancy. Hereditary influences will here have their weight, and ophthalmoscopic examinations may be of service.

12. Chorea. If it be encountered, its phenomena are readily recognisable; but its extreme rarity in infancy entitles it only to an allusion.

13. In chronic hydrocephalus pressure applied to the skull, or sudden changes of position, may induce convulsion. If the case should be of doubtful diagnosis, the ophthalmoscope should be brought to bear upon it.

14. Inflammation of the brain or its membranes, with or without the existence of hetarologous deposit, or of extravasations. In early infancy, as has been stated, tolerance for a time is sometimes exhibited of effused blood in one or more situations. In others, the child is born dead; in others, the advancing effusion may be seen in the advancing paralysis, and convulsions may or may not occur. In the sthenic varieties of acute meningitis the convulsions may be anticipated at an earlier date, and may be more frequent and better marked than in the granular or tuberculous meningitis. When they coincide with loss of consciousness; paralysis; the fixed bright stare; or with the tremulous pupil, or the oscillating globe; their significance is that of extremest danger. Undoubtedly the initial convulsion, with the shrill, piercing cry, the irregular or rapid pulse, the suspirious respiration, the slight flushes of color which chase each other over the face, may each and all denote and attend a beginning of meningitis, uncomplicated with deposit of tubercle or granulations, which may abort and resolve with safety to the child, even when the ophthalmoscope has pointed to the commencement of the intra-ocular symptoms of meningitis. But these are fortunate cases; and the terribly fatal character of these intra-cranial inflammations is justly responsible for much of the dread which convulsions inspire. In these cases hereditary predispositions, as shown in the history or fate of the parents or other members of the family, and the evidences of tubercular

deposit in the child, are to be sought for with redoubled care. The history of the preceding months is to receive every attention. Has the child shown unaccustomed irritability, restlessness, jactitation, and other evidences of irritation at night or by day? Was it feared for a time that some disease was germinating; have there been well or ill-defined evidences of some continued low febrile action? Has its expression been natural, or that of pain, or apparently causeless annoyance? Not only should these questions be prompted by the apprehension that such diseases may exist, but convulsions or other evidences of excitement of the nervous centres in patients with these predispositions demand the most intelligent prophylactic care. Every hygienic influence must surround them, in order that, even if unsuccessful, both parents and physician may truly feel that nothing has been omitted to avert the dread calamity.

(To be continued.)

Reports of Hospitals.

LONG ISLAND COLLEGE HOSPITAL.

Session of 1866.

A SERIES OF CASES ILLUSTRATING CARDIAC DISEASES, SELECTED FROM PROFESSOR FLINT'S CLINICS.

[Reported by O. C. Sparrow, M.D., Clinical Assistant to the Chair of Practical Medicine and Pathology.]

FUNCTIONAL DISORDER OF THE HEART—ANÆMIA.

Case VI.—*Valvular Lesions: Mitral Direct, Mitral Regurgitant, and Aortic Direct Murmurs.*

History.—Mary McKay, æt. 30 years, has had two severe attacks of acute articular rheumatism, one eight years ago and one three years ago; was confined to the bed for several weeks each time. Does not remember that she experienced any pain or soreness referable to the region of the heart with either attack. Has suffered deficiency of breath after active exercise ever since first attack; also occasional palpitation, dyspnœa, and cough. Her feet and legs have at times been œdematous.

She dates back her present illness a month.

Present Symptoms.—Her appearance denotes anæmia in a marked degree. She presents a loud "venous hum." Is low-spirited, excited, and alarmed; fears that she has some dangerous affection of the heart. Complains of palpitation; says that she can herself hear and feel the organ beating. Suffers neuralgic pain in her side. Pulse feeble, irregular, and intermitting. Appetite poor. Bowels costive. Has cold hands and feet. Is easily fatigued.

Physical Examination.—Pulmonary organs normal.

Heart.—Apex beat in fifth intercostal space, a little outside a vertical line passing through the nipple. Percussion reveals moderate enlargement. Hypertrophy still predominates over dilatation, as is evident both by inspection and by applying the hand to the præcordia. The impulsive movements of the heart are irregular and violent, denoting undue functional excitement.

On applying the stethoscope over different portions of the organ, a soft, mitral regurgitant murmur is discovered near the apex. It is propagated laterally around the chest, and is heard louder at the lower angle of the scapula than in front. At the base, opposite the second intercostal space, a rather feeble aortic direct murmur is heard, which is propagated into the carotids.

Over a circumscribed area, near the apex, a murmur is heard differing in pitch and quality from the first. It is rough and vibratory; is not propagated away from the præcordia. It precedes and ends abruptly with the first sound. This murmur is præsystolic or mitral direct. The pulmonic second sound is louder than the aortic second sound.

℞. Ferri et quiniæ citratis ʒ ij.
Syrupi limonis, fl. ℥ j.
Aquæ puræ, fl. ℥ v. M.

Sig. A dessertspoonful three times a day.

She was further advised to use nutritious diet, and to take exercise, including mental recreation, in the open air.

Comments.—We infer from the lateral diffusion of the mitral regurgitant murmur in this case, taken in connexion with the physical signs of enlargement of the heart, that the lesion of the valve involves actual regurgitation. Of all the organic murmurs, statistical researches show this one to be of most frequent occurrence, while the mitral obstructive lesion tends most directly to involve serious consequences. Mitral valvular lesions, as compared with aortic, tend more directly to give rise to nearly all the symptomatic phenomena of cardiac disease. Their effects are manifested primarily in the pulmonary organs. Dyspnœa and cough, attended by copious muco-serous expectoration, are frequently prominent symptoms. It is interesting to trace the pathological chain of sequences to which valvular lesions give rise, as they are successively manifested in the cavities of the organ and in the circulatory system at large. The first effect of lesions situated at the mitral orifice is over-repletion of the left auricle, which tends to cause dilatation of its walls by distension. The blood coming from the lungs by the pulmonary veins, finding the cavity already filled, sets back, causing congestion of the lungs. This congestion occasions cough, dyspnœa, and, if considerable, may give rise to pulmonary œdema, extravasation of blood (apoplexy), and hæmoptysis. The right ventricle also, owing to the obstructed circulation in the lungs, failing to empty itself of blood, next becomes affected. The effect is further propagated to the right auricle. Systemic venous congestion next ensues; and as the result transudation of serum into the subcutaneous areolar tissue and serous cavities (cardiac dropsy); and, lastly, the effect, propagated through the arterial system, reaches the left ventricle, and this in turn suffers dilatation.

The history of the case cited well illustrates a point of much practical importance in the consideration of cardiac affections, and one which hitherto has failed to engage the attention of medical writers, which it justly merits.

It relates to a proper discrimination between abnormal *power* and abnormal *action* of the heart.

Hypertrophic growth of the heart induces abnormal increase of power. The increased thickness and muscular power of the walls of the organ, incident to this condition, would naturally, it should seem, give rise to a proportionately increased strength of its muscular contractions. But the abnormal pulsation which is due to this cause is developed so gradually, pari passu, with the progress of the disease, that the patient insensibly becomes accustomed to it; and it rarely occasions much inconvenience. Cases have frequently been observed in which the impulses of the heart were exceedingly strong and powerful, the organ beating forcibly against the walls of the chest, and yet the patient be quite unconscious of it. Thus, persons affected with organic disease of the heart, which has given rise to even considerable hypertrophic enlargement, may live for years in the enjoyment of health and comfort, until the lesions of the valves shall have occasioned so

great a disturbance of the respiratory or circulatory functions as to cause distressing symptoms.

Functional excitement, on the other hand, is characterized by mere abnormal action, not power. It is far more apt than the former to occasion annoyance and discomfort, and oftener presents an indication for treatment. The distinctive characters relate chiefly to the impulsive movement of the organ. Both in hypertrophy and in the muscular activity which is due to mere functional excitement, this movement is increased. In the former case, the impulse of the apex beat is prolonged, sluggish, and powerful; in the latter, it is abrupt, quick, and violent. The former communicates to the touch a sense of abnormal power, the latter of violence. This distinction is generally appreciable even where functional excitement is superadded to the abnormal power which belongs to hypertrophy. One of the common causes of functional excitement of the heart is anæmia. This condition of the blood, by rendering the organ irritable, tends strongly to induce irregular action and palpitation. In this case the cardiac affection has, doubtless, existed for a period of years; yet, until latterly, she has continued to enjoy a comfortable measure of health. Her present urgent symptoms are chiefly referable to her anæmic condition. By employing measures for the removal of this, she will doubtless be restored to her former state of health.

NEW YORK HOSPITAL.

SURGICAL CASES.

SERVICE OF DR. GURDON BUCK.

[REPORTED BY W. W. HOPPIN, JR., M.D., RESIDENT SURGEON.]

SEPARATION OF EPIPHYSIS OF FEMUR.—AMPUTATION.

John E. Malone, aged 18 months, was admitted July 25, 1866, suffering from a fracture of the left thigh in the lower third of the limb, the soft parts in the vicinity being considerably contused. Patient was still unweaned. The child was suffering very much from nervous shock, but yet nursed quite readlly.

On the 9th of August, the patient's general condition had been much improved; yet it would take but very little nourishment except what it obtained from its mother's breast. The soft parts had sloughed, exposing the bone, and showing the accident to be a diastasis of the lower extremity of the femur.

On the 24th inst., the parents finally consenting, the limb was removed by the attending surgeon at the middle third of the thigh, very little blood being lost in the operation, and the patient rallying well from the effects of ether.

From this time, with the exception of a slight diarrhœa, which was easily controlled, the patient improved daily, the stump healing by granulation, and the process of weaning being accomplished without materially affecting the progress of the case.

On the 22d of September, the stump having entirely closed, and the general condition of the patient having greatly improved, he was discharged.

FRACTURE OF SCAPULÆ AND RIBS.—DEATH.

Edward H. Lewis, aged 45, was admitted September 28, 1866, having fallen through a hatchway, a distance of twenty feet. Patient was suffering considerably from shock, and from oppression in respiration. A body bandage applied, and a moderate amount of stimulus administered, followed by an anodyne, soon relieved the urgency of his symptoms.

Owing to the extreme pain caused by handling the patient, the extent of his injuries was not made out distinctly, but sufficiently to indicate the course of treatment.

On October 5th, he died, having been delirious for the last twelve hours of his life, pulse and respiration becoming very rapid, and the surface of the body cold.

Post-mortem examination showed that there was a fracture of four ribs of left, and five of the right side. There was a large quantity of serum in the pleural cavity, and a considerable amount of lymph. The lungs were highly congested. Both scapulæ were found to be fractured longitudinally through the spines and bodies, the right being almost, and the left entirely separated into two parts. There was considerable comminution along the line of the fractures; suppuration had commenced around the seat of the fracture of the spine of left scapula.

Hamilton, I think, mentions but four cases where there has been a fracture of the body of the scapula involving the spine, excepting, of course, as the result of gunshot wounds.

POPLITEAL ANEURISM, FAILURE BY THE "FLEXION METHOD."—LIGATURE OF FEMORAL ARTERY.—RECOVERY.

Frederick Biel, aged 45, was admitted September 7, 1866, with a popliteal aneurism, which he first noticed one year ago as a "little lump." It increased gradually in size until five months ago, when after a run of five miles it rapidly attained the dimensions which it presented on admission.

On examination there was found in the above-mentioned locality a pulsating tumor, the "bruit" being very distinct, both the pulsation and "bruit" ceasing on compression of the femoral artery. Its superficial dimensions were, vertically, six inches, and laterally, seven inches.

Flexion of leg upon thigh to an angle sufficient to cause pulsation in tumor to cease, being found to be so painful, it was discontinued, and on the 14th the femoral was ligated, the limb being subsequently enveloped in cotton-batting. On the 26th, the tumor measured five inches vertically, and five and a half inches transversely.

The ligature came away on the 12th of October, the wound having closed, except along the track of the ligature. Patient was discharged, the tumor measuring four inches vertically, and four inches transversely.

Progress of Medical Science.

Gold and Silver Leaf as a Covering for Lenses.—*Galignani* has the following: Our readers may remember our having, about a fortnight ago, mentioned a curious discovery, communicated to the Academy of Sciences by M. Foucault, to the effect that the sun might be contemplated with impunity through a lens covered with silver-leaf, the latter being just transparent enough to allow of the sun's disc being seen very clearly, though "shorn of its beams." Since then, the Academy received a communication from M. Melsens, in which he described a very useful application of M. Foucault's discovery. He states that about the beginning of last July he received an injury from the bursting of a balloon containing a solution of iodine and sulphurous acid, whereby both his eyes were attacked with violent inflammation, which he got the better of by a bold treatment. Nevertheless, the cure was not so complete but that great photophobia remained. The spectacles, provided with black glasses and used by railway engineers, having proved too transparent, he put green

ones over them, which answered their purpose tolerably well. M. Melsens, however, ultimately adopted preservers with pale blue glasses, which he covered, not chemically, but mechanically, with either gold or silver leaf, and this he found to answer best of all, the light so transmitted being exceedingly pleasant, especially in the case of gold leaf. The latter, when yellow, lets green light pass; when green, that is alloyed with silver, the eye receives blue light.

Delivery of Remains of Fœtus per Anum.—Dr. John Lewis, of King William County, Virginia, in an article in the Richmond *Medical Journal*, relates that on the morning of the 19th of April, 1864, he was called to see a negro woman, between thirty-five and forty years old, said to be laboring under chronic dysentery. The symptoms pointed to chronic disease of the bowels. Milk-toddy, made with brandy and some gentle astringent and anodyne, was directed; a small dose of Ol. ric., guarded by an anodyne, was subsequently given. The oil, on the succeeding day, had acted partially, and the rectum was nearly occluded by some substance. Upon introducing the finger Dr. Lewis detected a small piece of carious bone, which he believed to be the coccyx of the woman in a necrosed condition, and removed with some difficulty. "Further examination detected a mass of bones wedged in the rectum. Introducing two fingers of the left hand into the rectum, and separating the parts by distending the sphincter as much as possible (which fortunately was considerably relaxed, and seemed to adapt itself to the circumstances of the case), at the same time, with a delicate pair of forceps in the right hand, he extracted what he immediately recognised as the parietal bone of a fœtus, and continued to extract a second parietal, the os frontis, the occiput, the clavicles, humerus, femurs, etc., until the greater part of the most compact and hardest bones of the skeleton was removed. This process was facilitated by injecting water up the rectum."

The woman then told him she thought she had been pregnant the year before, and all symptoms had subsided without giving birth to a child.

In 1863 she thought she was pregnant, and gestation advanced as usual; during the ninth month she was taken with rigor, a small discharge from the vagina, pains resembling labor pains, though not as severe as usual. This condition lasted for several days, and then subsided; the abdominal enlargement gradually disappeared, and her health was bad. Dysentery came on about two months before seen by Dr. Lewis. After the removal of the bones she recovered rapidly.

The first piece of bone extracted was thought to be a portion of the coccyx of the mother, as it seemed to be attached. The other bones, before seeing them, were thought to have been swallowed without mastication. The bones seemingly indicated full development of the fœtus, from their size and compactness.

"The woman," continues the narrator, "now nearly two years from the occurrence, enjoys good health; has menstruated regularly since her recovery, but has not been again pregnant. She did not menstruate from the time of her supposed pregnancy, or during it, until after the removal of the remains of the fœtus.

"After extracting the bones, I endeavored to examine the rectum, in order to ascertain if there was a communication with the vagina or any other organ, without finding one; nor was there at any time fœcal matter voided through the vagina.

"My opinion is, that it was a case of extra-uterine pregnancy; it progressed to maturity, the fœtus being inclosed in a sac extemporized for the occasion; delivery being impossible *per vias naturales*, the fœtus died; the soft parts were absorbed, leaving the bones of the fœtus; adhesion took place between the sac and the colon or rectum; and finally, by sloughing of the parts an opening was made, and the bones made their exit per anum."

Arsenic in Hæmorrhoids.—In a previous number we called attention to the accidental discovery by Dr. Parvin, of Cincinnati, of the utility of arsenic in hæmorrhoids. We now notice in the same journal from which we made the quotation, the *Cin. Jour. of Med.*, the following letter, addressed to the editor:—

"*Dear Doctor*—Some eight weeks ago I had an attack of hæmorrhoids, which so far incapacitated me for any physical exertion that the exercise of carrying the least burden, or even continuous walking for any length of time, would be the cause of great pain and external tumefaction. Having had within the last twelve years repeated attacks of the kind, which were only relieved by nature's dangerous method, *suppuration*, or by extensive local depletion by leeches or the lancet, I expected in this instance a like termination. About two weeks ago I concluded to try Fowler's Solution, though I must confess with only the slightest degree of faith in its efficacy. I used ten drops of it three times a day. On the third day I felt partially relieved, and four days after was fully restored. I know the import of the *post hoc a propter hoc* fallacy in reasoning, have heard say that it takes more than one swallow to make a summer, and am as slow of belief in new remedies as any one; but I am fully persuaded that I have been relieved of this most troublesome disorder by the agency of the arsenical solution so timely brought to light in your valuable journal..—J. C. B."

Inhalation of Sulphuric Ether in Capillary Bronchitis.—Dr. W. Y. Gadberry, M.D., of Lexington, Miss., in the *Nashville Journal of Medicine and Surgery* (October, 1866), gives the details of two cases:

"Mr. Richard Maning, of Yazoo county, aged about twenty-six years, had a protracted spell of typhoid fever, from which he was slowly recovering when he was exposed to a draught of damp atmosphere, which brought on an attack of this disease. I found him, at my next visit, propped up in bed, with a livid countenance and extreme dyspnœa; percussion resonance clear and symmetrical on both sides of chest; sonorous, sibilant, and small mucous râles diffused and very loud. An attempt was made to arrest the disease by counter-irritants and large doses of opium, with a liberal exhibition of stimulants, the patient being too weak for depressing or nauseating remedies. On the second day he was evidently much worse, and seemed, to all appearance, dying. His friends were called to his bedside, and but little hope was entertained of his recovery. I remained with him during the day, plying stimulants and nourishing diet, as brandy, ether, ammonia, milk, and beef-tea. The day following (the third of the disease) I lost all hope of him, notwithstanding his pulse was comparatively good. His skin was deeply cyanosed, respiration more difficult, and his nervous system so paralysed by carbonized blood that he ceased to notice even when aroused, and lay in a semi-comatose condition.

"Before this he had assured me that he had not slept since the disease attacked him, and said he must die without it. Hoping to give him some ease, and procure the desired rest, I saturated a cloth with sulphuric ether, and applied it to his nostril. In half an hour he slept quietly. The inhalation was continued during the day in sufficient quantity, and it had the desired effect, not only in inducing sleep, but in relieving the or-

thopnœa, which was greatly mitigated. In the evening he expressed himself more comfortable.

"The remedy was continued during the third night of the disease with the sustaining agent before mentioned. On the fourth day he was much better and considered out of danger, but I continued the remedy until his breathing was natural. After this he continued the sustaining treatment, which soon restored him to health.

"I was assisted in the treatment of this case by Dr. J. F. Green, of Benton, Miss.

"*Case* 2.—Miss Mary K., aged ten years, after having headache two or three days, was attacked with fever and severe cough on the 20th May, 1866; measles appeared on the 22d. She had taken two patent cathartic pills, which moved the bowels twice. Early in the night of the 22d she was attacked with severe dyspnœa, which increased rapidly, and her restlessness became so great that her attendants used force to hold her in bed. Dr. Sutton was called to see her at midnight, and found her extremities cold, eruption faded, skin bluish, dyspnœa extreme and increasing by paroxysms, and pulse too rapid to be counted. He ordered salt and warm water for its emetic effect, but it failed; mustard to extremities, and brandy toddy internally. On the 23d, at eight o'clock A.M., I was called in consultation, and found her in the condition above described, but slightly improved. Her restlessness prevented a satisfactory exploration of the chest, but the small râles were heard distinctly diffused over the thoracic cavity. It was distressing to witness her struggles to get breath. Her face seemed bloated, and everywhere her skin was deeply cyanosed. When quiet, her respirations were fifty per minute, laborious and jerking; pulse could not be counted, but exceeded 140; voice clear.

"*Prescription.*—Brandy to be continued; one dose morphine; inhalation of sulphuric ether until she sleeps.

"At nine o'clock we attempted to vomit her with warm infusion of mustard, but failed. The ether soon had the desired effect, and we left her.

"*Noon visit.*—Has taken the brandy but once since morning, but inhales the ether constantly when awake; expresses herself much better; breathes easier; pulse fuller, softer, and less frequent; eruption more florid and better developed; sweats profusely. Her clothes were changed and skin rubbed with a flesh brush. The cough, which had ceased, has returned, and she expectorates a little. About one P.M., she drew a large worm from her throat.

"*Six o'clock P. M.*—Miss Mary has improved rapidly, breathes quite easily, and all the bad symptoms are relieved. She will persist in using the ether.

"*24th.*—Fever has subsided, and she seems to be convalescent. She continues to inhale the ether at intervals."

The Cause of Caries of the Teeth.—Dr. E. R. Smilie (*Dental Cosmos*), in speaking of the cause of caries, makes the following sound remark:—"If the subject is traced with reason through all its complications, hereditary, etc., engendered by long-continued neglect, I am confident that the cause of caries will be found to reside mainly in the constantly increasing habit of denying the teeth the privilege of self-preservation, by superseding artificially the function of mastication. If we consider the formidable armature of the jaws—the teeth and powerful muscular aids for working the battery, they show conclusively that their function, so plainly indicated by nature, cannot be neglected with impunity, without impairing their own integrity, and by withholding the gustatory excitement necessary for the elimination and proper admixture of the glandular juices with the food, the subsequent organic functions required for the proper preparation and assimilation of the nutrient material would become perverted. Thus, it will require no great stretch of reasoning power to discover in excessive cookery and consequent neglect of the functions of the jaws and teeth, prolific cause of caries. The remedy will be found in the adoption of food that cannot be swallowed without being thoroughly bruised and separated by the action of the jaws and teeth."

An Efficient Hæmatic.—Dr. Humphrey Peake, of Visalia, California, publishes in the *Pacific Medical and Surgical Journal* the following formula for a pill which he has used with signal benefit for the past ten years: —℞. Quiniæ sulphatis, ʒj.; Ferri Redacti, ʒjss.; Strychniæ, Acidi Arseniosi, āā grs. iij.; Confectionis Rosarum, vel Mucilaginis Acaciæ, q. s. ut ft. pil. lx. He says: "The range of morbid conditions to which this pill is applicable is astonishing to any but the educated of the medical profession. It is applicable to all cases—saving, perhaps, organic disease of important organs; and here, indeed, it could do no harm, although it might be impossible to cure—when the object is to improve the quality of the blood. But it is more particularly applicable and useful, and *curative*, in the whole list of what I will take the liberty of calling *malarial cachexiæ*."

Sheet-Lead as a Dressing for Wounds.—A surgeon of some eminence in his profession at Ghent has recently published an account of a method of treating wounds with dressings of sheet-lead. From the first of January, 1864, to the end of May, 1866, Dr. Burggraeve has treated two hundred and thirty-six cases in this manner, and only eight deaths have occurred. His process is exceedingly simple. It consists in washing the wound carefully with lukewarm water, and then covering it with pieces of sheet-lead, which are secured with adhesive plaster. Most of his patients have been workmen injured by machinery, and were too weak to undergo operations, owing to the impoverished state of their blood. "The wound," says M. Burggraeve, "whatever may be the amount of contusion, crushing, or laceration, is first washed carefully without detaching or cutting away any portion of the flesh, since in the state of torpor it is impossible to say at once which will mortify and which may be preserved, aad one runs the risk either of cutting away too much or too liitle. It is next surrounded with thin slips of lead, retained in position by sticking-plaster. From time to time a jet of warm water is injected under this armor, if we may use this expression, so as to remove the ichor and refresh the parts." In order to watch the progress of the wound, each sheet of lead may be removed independently of the others. The contact of the metallic lead with the flesh causes no irritation, and the rigidity prevents friction, and excludes the air, a very important point. Besides the mechanical action of lead, Dr. Burggraeve thinks that it may also be attended with some physical action, and quotes the well known effects of Goulard's extract. The author enlarges on the value of this method of treatment in military surgery, where operations must, at least in active service, be somewhat hurried; and many a limb which, under ordinary circumstances, might have been preserved, is sacrificed in consequence. Gunshot wounds, he says, have much analogy with injuries caused by machinery, and we may reasonably assume that the results will not be dissimilar. Whatever the theoretical objections to lead bandages may be, they appear at all events to have had a fair trial, and to have been productive of good results.—*London Leader.*

THE MEDICAL RECORD.

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GEORGE F. SHRADY, M.D., EDITOR.

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MEDICAL JOURNALISM.

THE influence for good which a well conducted medical journal has upon the profession is incalculable. It holds, in fact, such an important relation to the best interests of the world of medicine, that its place, when once vacant, cannot be supplied. We may rely upon our text-books as much as we please; we may study their pages, digest their teachings, and apply the truths which they give us; but this does not, neither can it, satisfy all our demands for information. When we have perused our works to our entire satisfaction, there is still left to us a void which only a journal can fill. Our authorities give us treatises which must of necessity be our guides; which give us principles to practise upon, and facts of experience and observation for us to make note of; but to the journal is left the office of filling up the gaps which the book-makers are compelled to leave for us.

How many men are there who would be willing to write a paper, deliver a lecture, or work up a particular subject for a journal, but who would not dream of embodying their ideas in any other form than in an article or two! These are the men who really work to supply our most urgent wants, and whose suggestions should be none the less welcome to the practitioner because they refer to subjects that are perhaps too trivial for the writer of a systematic work.

But the topics which come under the scope of a medical journal for discussion are not always even comparatively trivial; and if we take the pains to inquire how all the great discoveries in medicine and surgery have found their way to the medical public, we are not long in discovering that to the medical periodical press belongs the principal credit. If we were to wait long enough after such new developments in our science were made to have them incorporated in some book, what a sorry plight we should be in for timely information, even if it were presumed that our pecuniary means would enable us to purchase every one of the many excellent treatises that are published. How long was it, after the great and important fact that chloroform would produce insensibility was generally known to medical men through the journals of the day, that any mention was made of it in any medical or surgical work? This is only one of the many illustrations of the importance of having some available medium for the ready communication of valuable truths. At the present time there are a host of interesting and practical observations which have not yet been thus transferred from the pages of our periodicals. We can with propriety, in this connexion, allude particularly to the establishment of the principle of local anæsthesia by Richardson of London. There is now hardly a medical gentleman anywhere to be found who is not acquainted with the brilliant results of the experiments of this distinguished physician; but in no text-book have we as yet found any allusion to it. No sooner did Dr. Richardson communicate the results of his observations to a leading London journal than his views were eagerly seized upon; and before two months had passed away every subscriber to a medical journal was rejoiced to find that a means at once so simple and innocent of harm, and so efficient for deadening the pain of operations, was placed in his hands. Richardson's apparatus, too, became thus generally known; its employment became extensive and its application general. So it has been, to a certain extent, with all the useful discoveries that have of late years been made; the medical periodicals being the legitimate channels for their communication to the professional public.

We might refer to many other good offices which a properly conducted medical journal performs; but in so doing we should only waste space that can be more profitably appropriated. All must, however, agree with us in according to the medical press no mean share of praise for the dutiful discharge of the most weighty responsibilities; and but for it much that is useful and valuable to the profession would now be entirely unknown.

But in the face of all this, every one is aware that medical journals are not in this country, as a general thing, prosperous enterprises. The number of failures of such periodicals has been sufficiently great to leave no doubt of the truth of this assertion. While we admit, on general principles, that the success of any periodical is the surest proof of its merit, we are not equally willing to acknowledge that, because a journal fails, it is necessarily an inferior one. There is another explanation for these failures other than that which refers to the character of the magazines. In other countries all the good periodicals flourish well and become permanent institutions; but here only a few stand any chance to succeed at all. One of the main reasons for this is, that there is not such a demand for periodicals of this sort among us as there is elsewhere; in other words, the physicians of America are not, as a whole, a reading and studious class. We will not go so far as to say that they are altogether indifferent to the progress which our science is constantly making, but

that they have not received that mental training which would make them good students and careful thinkers. The very few journals throughout our country which receive anything like decent patronage show how few there are who may claim themselves as exceptions. Our medical population should be sufficient to keep in good running order at least three times the number of periodicals which we now have; and yet we have reason to believe that many even of these are not self-sustaining. The great majority of practitioners are non-subscribers to any journal, and manifest an appalling indifference to the benefits which would otherwise accrue to them. Yet, despite this, they follow their daily avocations in the sick-chamber, and have the consciences to cheat their patients into the belief that everything is being done for them which it has been in the power of modern science to suggest, or of recent experience to verify.

There is no excuse for men who follow such a responsible calling as ours not taking pains to acquaint themselves with every advance which may be made. We cannot imagine that there is any physician who would dare assert to any one of his patients that he neglects any of the means within his reach for improving his store of knowledge; still we all know how many there are who never read as much as a printed page a year. It is preposterous for any medical man to say that he has no time for reading or research. He himself knows that this excuse is a flimsy and shameful one. There is not a practitioner in the country who cannot spare sufficient time to devote to study and reflection if he is so disposed. Those who do the largest amount of practice are known to be the greatest students. We could point to not a few of such who would serve most triumphantly to prove our statement, but we forbear to outrage their modesty by any personal allusion.

The want of excellence in our various medical periodicals affords no excuse for professional men to refuse them aid and support. Even if it were true that our journals are so much inferior to those published across the Atlantic, no medical man who presumes to be a judge of the merits of articles has a right to complain of the works of others unless he is willing to prove that he can do better himself. We are well aware that there is hardly a journal published anywhere that might not be improved, that very few come up to the standard we might desire, but as a whole they are creditable to the literature of our country. There is not one which is not worth double its price of subscription, and which should not, for the credit of the profession, be well supported by contributions and subscriptions.

We should be unjust in the abstract, were we to withhold our sympathy from that class of reformers which the Germans, with a grim humor, are wont to style "world betterers," since their tasks must needs be ungracious and their reward must consist in unsatisfactory instalments of praise from a very small circle. They may be energetic, but they are unfortunately Quixotic, and may at any time, on very slight provocation, become ridiculous. Being enthusiasts, they are, of course, armor-proof against the shafts of ridicule, and undaunted by failure, they may advance from sorrowing over the woes of turtles to the dignity of shivering a lance with a barbarous doctor. Mr. Henry Bergh, President of the "Society for the Prevention of Cruelty to Animals," protests in the public prints, "in the name of Heaven"—the century being the nineteenth, Jupiter is spared the invocation—"public morality, and of this society"—a climax to which we decidedly object—"against these fearful cruelties"—the adjective is too intense—"inflicted on dumb, unresisting creatures, confided to the merciful protection of mankind, without the employment of anæsthetics." With the simple statement that Mr. Moon would scarcely let the English pass as even "the Dean's," we at once introduce Prof. John C. Dalton, the exponent of the opposite creed, to whom the letter of Mr. Bergh was referred for reply. Prof. Dalton, after a few preliminary remarks, defends the practice of vivisection as follows:

"First of all, its sole and ultimate object is the relief of human suffering and the cure of human diseases. It is the best and most valuable means by which our knowledge of physiology is increased; and upon physiology the cultivation and improvement of the whole medical art depend. All intimations that it has any other motive than this—such as display, wantonness, or the indulgence of a reckless cruelty—are false, and do not represent its true character. The knowledge which is obtained by it enables us to understand the natural functions, without which the study of medicine in all its branches would be retarded, and indirectly but certainly the success of medical practice diminished. In point of fact, notwithstanding all unfounded assertions to the contrary, the greatest discoveries in physiology have, in past times, been directly due to its employment; and while we owe to it a large proportion of the useful knowledge which we now possess, it would be the greatest misfortune for medicine and the welfare of mankind, if it were abandoned or neglected in the future.

"Secondly. It is not a cruel practice, but may be and is, in a great majority of instances, conducted in a perfectly humane and unobjectionable manner. It can never be the object of the physiologist to inflict unnecessary suffering; but, on the contrary, it is desirable both for the sake of humanity and for the attainment of his object to avoid doing so. This is greatly facilitated by the use of anæsthetics. Since the anæsthetic properties of ether and chloroform have been known to us, their employment has been fully as useful to the physiologist as to the surgeon, and they enable us to do the requisite preliminary operations without the animal experiencing any sense of suffering, and even without his consciousness.

"As you (Dr. Edward Delafield, President of the College of Physicians and Surgeons, New York) are aware, it has been my constant practice to employ ether for this purpose, in the College of Physicians and Surgeons, whenever the operation to be performed was calculated to inflict pain upon the animal. This can always be done, except in a very small class of cases, where the aim of the experiment being to ascertain the existence of sensibility in a particular part, the unconsciousness produced by ether would defeat the object of the operation.

"This is especially true in certain experiments of Magendie, performed in 1822, on the roots of the spinal nerves, to which I referred in a former letter, and by which the seat of sensibility in these parts was ascertained. But those experiments are so rare that I have not only never had occasion to do them myself, but do not recollect ever to have seen them performed. Yet I know now that they have been done in former times, and have been productive of the most valuable and lasting results; and when requisite for other objects similar experiments might again become necessary and proper; and even here the amount of suffering inflicted is very much less than it is often represented to be. It can only be necessary to obtain an indication of sensibility, and the object of the experiment is accomplished. The practice of performing surgical operations on living animals by students or practitioners as a means of acquiring dexterity, so far as I am aware, is unknown in this country.

"I allude to these considerations because I think they are important to the cause of medical education, in which we, as well as the whole community, are interested. In the College of Physicians and Surgeons, over which you preside, it has always been believed that the fullest instruction in physiology, as well as in the other elementary branches, is essential to the due preparation of intelligent and successful physicians. The more complete and efficient this instruction is made, the more competent will be the practitioners who every year are sent out to join the ranks of the medical profession. This instruction is made as complete as possible by ocular demonstrations of many important facts, but this is always done, as I believe, in a reasonable and proper way. It is not the case that 'revolting barbarities are repeated at lectures for the mere gratification of juvenile curiosity.' It is unnecessary to say to those who are familiar with these lectures that no such barbarities are to be seen there; but it may be desirable for the information of those who are unacquainted with the subject, and might otherwise acquire an unfounded prejudice against it. I cannot, therefore, pass over without reply the communication of Mr. Bergh, which is calculated to place in so false a light one of our most valuable means of improvement in medicine."

We might comment still further upon the matter, but since Prof. Dalton has consented to read a paper before the Academy of Medicine upon "Vivisection—its Usefulness and Propriety," and has been calendered for the 12th instant, our readers will have the benefit of his own cathedral statements upon points untouched in his present necessarily brief reply.

We are gratified to remark the social tendencies of the profession in our own city at least, as evinced by the holding of re-unions, than which no custom will so much enhance a mutual esteem, or more indirectly contribute to an advancement in popular favor. The "*New York Medical Journal Association*" has happily inaugurated the matter, and the "*Medical Society of the County of New York*" followed with a practical endorsement on the occasion of "its sixty-first anniversary meeting." These relaxations from the cares of practice can certainly be fraught with no evil, since the convivial element has never yet been allowed, even in the case of the most susceptible natures, to advance to Tam o' Shanter's stage of

"O'er a' the ills of life victorious."

Reviews.

TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY at its Sixteenth Annual Session, etc. Indianapolis, 1866, pp. 110.

ANOTHER of those very welcome additions to our annual society publications is before us, and fain would we transfer to our columns more than one article for the delight of our readers; but the want of space forbids, and we can therefore only briefly notice. "The President's Address, by M. H. Harding, M.D., Lawrenceburg, Indiana," touches in graceful phrase upon the "effects of climate and temperature upon health and national character." After many classical allusions and liberal quotations from "Montesquieu's Spirit of Laws," "Draper's Civil Policy of America," and "Buckle's History of Civilization," the orator comes to the very patriotic conclusion that the United States is the utopia of all the desirable conditions of progress. "Cholagogues and the Indications for their Use. By V. Kersey, M.D., Richmond, Ind." As a careful collation of authorities, physiological as well as chemical, this paper evinces remarkable research. It is professedly a rejoinder to Dr. James F. Hibberd's Essay on the Liver, published in a previous volume of the Transactions. The gauntlet is boldly taken up, and the cholagogue properties of calomel defended with an array of experimental facts and a deal of close logic. The controversial complexion of the contribution, with the almost necessary concomitant of the *à priori* method of argumentation, to do justice to which requires quotation at length, compels us to dismiss the subject, at least for the present. We are, however, safe in admitting, with the cautious Sir Roger de Coverley, on similar occasions, that in the consideration of this now agitated question, "much may be said on both sides."

"Thoughts on Asiatic Cholera—its Mode of Propagation and Proper Treatment. By L. R. Johnson, M.D., Cambridge City, Indiana." The writer, who is a contagionist, reprobates the use of large doses, and recommends that "at the outset of the disease," if the stomach will retain five grains of calomel and half a grain of opium they should be given, and repeated every ten, fifteen, or twenty minutes, until three or four potions have been taken, after which the quantity, *especially* the opium, should be diminished. In many cases a grain of calomel and a drop of laudanum, or its equivalent of opium, every five minutes, will answer every purpose, a larger quantity being thus retained. "Cholera. By William F. Harvey, M.D., Plainfield, Ind." Here the author holds that the cause of the pestilence is primarily electrical, or "a disturbance of the equilibrium or distribution of electricity;" after that the presence of nitrous and nitric acid in the atmosphere plays an important part, by increasing the serous portion of the blood and decreasing the crassamentum; and finally fear, by a depression of the vital energies, produces more cases than all the other exciting causes. He contends that the disease is neither contagious nor infectious, but epidemic; and recommends Cartwright's prescription, of which calomel (grs. xx. to lx.), Pulv. camphor (grs. xv. to xxx.), and Pulv. capsic. (grs. xx. to lx.), are the ingredients, to be repeated every two to four hours until vomiting and purging cease. "The Pathology and Treatment of Cholera. By R. E. Haughton, M.D., Richmond, Ind." A profound blood-poisoning is the root of the disease, and the discharges are to be regarded rather "as an evidence of the destruction of all the vital forces than as an excretion." "I would," says the writer, "prefer to wait and interpret nature rather than to use officious medication. This disease is propagated by cryptogamic

causes, and hence is not contagious." "The Radical Treatment of Inguinal Hernia, and Report of a Case of Epilepsy cured by Trephining. By James Thompson, M.D., Moscow, Ind." This paper introduces us to an ingenious modification of Wützer's instrument for the cure of inguinal hernia by adhesive closure of the ring. The apex of a Minié-ball rounded off, with a hole bored through for the reception of double-annealed iron or silver wire, a wooden canula made from a United States army urethral syringe-case, and a button of lead with two holes to fasten the ends of the wire, a sequestrum forceps to pass through the canula, a curved needle armed with the wire of the ball, and a bone forceps to split the canula when this office is fulfilled, constitute the only necessary implements of the surgeon. As regards the second part of the contribution, we have only to add that the author strongly favors trephining, and prefers sutures to adhesive straps in the required crucial incisions of the scalp. "Excision of Bone, by John A. Comingmore, M.D., Indianapolis. Ind," is a practical paper, replete with excellent suggestions. "Vaginal Fistules, etc, by Theophilus Parvin, M.D., Indianapolis, Indiana," has already appeared in our columns. "Human Entozoa, by William B. Fletcher, M.D., Indianapolis, Indiana," is a condensed, but most excellent review of the present state of our knowledge regarding this subject. "Progress of Medical Science, by H. C. Cole, M.D., Kokomo, Indiana," is a current eulogy of the great names of the profession, with a brief reference to the nature of their contributions to science.

A Manual of Auscultation and Percussion. By M. Barth and M. Henri Roger. Translated from the sixth French edition. Philadelphia: Lindsay & Blakiston, 1866. 12mo., pp. 161.

This is one of the most useful and practical manuals of its sort that has ever yet appeared, and we cannot too strongly recommend it to every student of medicine who wishes to lay a sure foundation for the future study of these most important branches. It is sufficiently comprehensive without being lengthy, and the principles, which are eminently sound, can easily be mastered and understood.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 11, 1866.

Dr. A. C. Post, in the Chair.

POLYPUS OF RECTUM.

Dr. Hutchison presented a polypus which he had removed that afternoon from the rectum of a boy thirteen years of age. The symptoms of the disease, as far as he could learn from the patient, had existed for five or six months previous. It would come down frequently, and always when he had a passage from his bowels. He was always able to replace it subsequently without difficulty. Dr. H. saw the patient that afternoon, and on making an examination, he found a tumor, with a pedicle about the size of a lead-pencil. In drawing down the tumor the pedicle suddenly ruptured, and the mass came away. Not having seen the whole length of the pedicle, he was unable to say how far it was attached above the anus. Very little hæmorrhage followed the rupture. The polypus was a little larger than a hickory-nut.

Dr. Post remarked that polypi of the rectum were different in consistency from those removed from the nose, being more dense in structure, and having a "livery" look and feel. He had frequently removed them by merely pinching off the pedicle with the finger nail.

FUNGOID TESTICLE.

Dr. Hutchison exhibited a fungoid mass which he had removed by operation from a Spaniard. Only an imperfect history could be obtained. As far as could be ascertained, the patient six years ago received an injury of the right testicle, followed by some pain and swelling. The pain subsided considerably, although the swelling did not. Six weeks ago, a fungous mass protruded through the anterior portion of the scrotum. Dr. H., from the symptoms presented, from the presence of pain induced by pressure upon the testicle, and from the absence of any enlargement of the lumbar or iliac glands, concluded that the disease was simply the result of inflammation. After the mass was removed, it proved to be a benign tumor. The cord was not at all enlarged, and the vas deferens was of normal size.

URINARY CALCULUS—LITHOTOMY.

Dr. Hutchison also presented a third specimen, which was a urinary calculus, removed by lithotomy from a child two years and three months old. He had manifested symptoms of disease from an early period in life. All the rational and physical signs of stone were presented. The bilateral operation was performed, and the calculus, weighing sixty-five grains, was removed. He also exhibited a second specimen of calculus that was, in like manner, removed from a little patient two years and nine months old. This calculus weighed eighty-five grains. In both instances, the prostate was successfully and easily divided by Prof. Post's bisector. The first case entirely recovered, and the last one was doing well.

TUBERCULOUS INTESTINE, ETC.

Dr. Thomson presented a tuberculous intestine removed from a patient, whose history he gave as follows: "This specimen was removed from a patient in the Charity Hospital, Blackwell's Island. I saw him four days ago for the first time. He had been admitted from the workhouse two days previously, having complained mostly of weakness and difficult breathing. He said he had some pain in the chest, but that his chief difficulty was that he 'could not breathe.' When my attention was called to him, his pulse was 97°, rather regular and moderately strong. On examining the movements of the chest, his respiration resembled very much that of a person laboring under asthma. There was hardly any expansion of the chest, and the respirations were quite rapid. Percussion yielded hardly any marked results. There seemed to be a fair amount of resonance—it was nearly equal on both lungs. There was, however, posteriorly on the left side a slight amount of dulness between the scapulæ. On auscultation I at first thought, as soon as I put my ear to the right apex, that the breathing was very much like consolidation. There was a harsh inspiration, and a short, high-pitched expiration. But I found that that same character of respiration extended not only over the whole of that lung, but also of the other lung. I found no evidences of pneumonia, except a small amount of crepitation in that locality where dulness had been discovered. Vocal resonance was very much increased on both sides. As he complained slightly of pain across his abdomen, on the line with the lower ribs, I carefully examined the parts. He bore palpation very well, and no enlargement of the liver or other organs was found. I asked about his previous habits, and was told that he had always been temperate (a statement which I had occasion to doubt), and that some time before he had had severe inflammation of the bowels, when the abdomen was painful.

"After sleeping quietly that night, the patient next day grew suddenly worse; his breathing became very

rapid, his pulse weaker and weaker, and he finally sank and died in the evening. There had been no diarrhœa.

"At the autopsy, the lungs were found stuffed with tubercles of the miliary variety. Softening had only taken place at the posterior portion of the lung, where crepitation had been detected. The intestines were extensively adherent to one another, while their surfaces were studded over with myriads of tuberculous grains. The parietal peritoneum was also studded over with these tubercles, as well as the surface of the pleura. There was no serous effusion in the abdomen."

EPITHELIAL CANCER OF MAMMA.

Dr. Rogers exhibited a growth from the mamma of a lady seventy years of age. The mass first made its appearance about a year before as a warty excrescence on one side of the nipple. It rapidly increased, so that at the time of its removal it was nearly the size of a small orange. Dr. R., as the result of careful dissection, found it to have sprung from the integument alone, and supposed it to be an epithelial cancer. This diagnosis he was able to confirm by a microscopical examination.

Dr. Krackowizer remarked that he had never seen a case similar to the one described by Dr. Rogers. Indeed, he only knew of one on record, and that was referred to by Paget. He thought that it was of the utmost importance, in view of the extreme rarity of this disease in that locality, to be perfectly satisfied as to the microscopical characters.

Dr. Rogers remarked that he had made a careful microscopical iexamination, and was satisfied that the results of such would bear him out in his diagnosis.

Dr. Rogers also exhibited a fibro-recurrent tumor which had been reproduced upon the arm in the situation of the insertion of the deltoid muscles.

SPONTANEOUS GANGRENE OF FOOT.

Dr. Post presented a specimen of spontaneous gangrene of the foot, which had been removed by amputation from a woman forty-eight years of age. She had an attack of typhoid fever about five months ago. Her recovery from this sickness was slow and imperfect, and about two months after the attack there began to be a discoloration of the great toe, attended with pain and the other usual symptoms of spontaneous gangrene. This gangrene steadily progressed until two weeks ago, when a line of demarcation formed, which was nearly circular in direction around the centre of the foot. He saw the patient with Dr. Vanblacklan for the first time on Saturday. She was still suffering from great pain in the part.

Dr. Post concluded that it was best to amputate the leg, which he did by the long anterior flap method. The operation was remarkable for the absence of hæmorrhage. After ligaturing the anterior posterior tibialis and peroneal arteries, there was hardly any bleeding from the smaller vessels. After waiting some considerable time, and the stump still remaining comparatively dry, the dressings were applied. Notwithstanding the feeble circulation in the parts, the integuments seemed to be very well nourished. In conclusion, he remarked that he had never performed an amputation, nor seen one performed, where the loss of blood was so trifling.

Dr. Newman remarked that Dr. Hutchison had performed a similar operation under similar circumstances, and in that case, on post-mortem examination, there was found a perfect occlusion of the main artery as far up as the iliac.

Dr. Post remarked that there were no evidences of occlusion of the arteries in this case.

Stated Meeting, April 25, 1866.

Dr. F. H. Hamilton, President, in the Chair.

Dr. Peaslee presented a specimen, of which he gave the following history:

SEBACEOUS OVARIAN CYST, ETC.

"I was requested in the autumn to see a lady confined a month previous of a living child, which child was then doing well. Her labor was a very tedious one, lasting three or four days; and it at length terminated very rapidly without the attending physician being able to account for the sudden change. After the child was expelled, and the placenta removed, the physician found in the upper part of the vagina a mass of substance as large as a fist, composed of what resembled lard in appearance and in consistency. Thinking that it must be some fatty substance, he threw it upon some live coals, and found that it burned readily; he afterwards found that it dissolved entirely in ether.

"The patient did not rally well after her confinement, and for a few days the lochial discharge was accompanied by some element which rendered it intolerably fetid. She began to decline in health, and the discharge continued to increase until I saw her.

"On making the examination per vaginam I found that the os uteri was patulous. I could easily pass the finger into it; and, on turning it towards the right ilium, I found that the finger passed directly into the walls of a cavity in the cervix, which was of considerable size. I could not pass the finger beyond, because the os internum at that time was pretty nearly closed. On reaching into this cavity, and bending the tip of the finger as far down into it as I could, I felt something that gave me the impression of a surface covered with hair. This was all I could ascertain. I, however, made up my mind that there was an ovarian cyst there, containing hard, sebaceous material, which by its size had interfered with parturition, until finally it had given way and had discharged its contents. I advised the use of disinfecting injections into the vagina, and remarked that as soon as the hair could be got rid of the cyst would probably collapse.

"The physician followed my advice and communicated with me once in a while, letting me know how the patient was getting on. He found that the cavity very soon began to contract, and the fetor of the discharge diminish. If, however, he omitted the injection a single day the fetor would return. This went on for three weeks, when he gave a report to this effect: that on making his injection one day he found something protruding through the opening of the cyst. It proved to be a bunch of hair, which he grasped with a long forceps and removed. The hair, which was the color of the woman's hair, was rolled up and firmly matted together. Immediately after this was removed the injections were continued, when all the fetor ceased; and the last report was that the opening had entirely closed, and the woman was gaining flesh and color."

Caustic to the Eye.—Dr. E. Williams (*Cin. Lancet & Observer*) says:—The application of the pure nitrate of silver in substance to the eye, unless very exceptionally, and then with great care not to use it energetically, or let it touch the cornea, should be excluded from practice. It is an *unmitigated outrage on humanity*, both in its direct and remote effects. I have seen so many cases like the above, where terrible and irreparable injury had been done to the eye by reckless cauterization, that I cannot too severely condemn it.

Correspondence.

NOTES AMONG FOREIGN OCULISTS.

New York, Nov. 15, 1866.

To the Editor of the Medical Record.

Dear Sir—My brief visit to Vienna was made against the advice of several friends, who were sure that I should find nothing worth seeing; that the hospitals would contain chiefly military surgery; and that so soon after the close of the war, the usual clinics would still be in suspense. To test the value of this opinion, I determined to go, and will give you my experiences.

I took Heidelberg by the way, hoping to see Helmholz, the inventor of the ophthalmoscope, and Knapp, both of them professors in the University. Helmholz was away, and I could only see his laboratory.

It contains a large amount of apparatus, particularly for experiments upon sound and hearing, in which he has recently made valuable investigations But I examined with the liveliest interest his ophthalmometer, with which he made the first exact measurements of the curves of the cornea and crystalline lens in the living eye.

Dr. Knapp adjusted the instrument for me to examine a patient's cornea in which there was great irregularity of curvature, although transparent. To read off the radii of curvature when the minute images reflected from the cornea are seen, is as easy as to read on the sextant the latitude of a ship at sea. Dr. Knapp, whom I had the pleasure of knowing in Berlin, with great politeness also showed me his own establishment, in which he has some forty beds, besides an out-door department. He works at all sides of ophthalmology; in morbid anatomy he has a large microscopic collection; in optics, he makes great use of the ophthalmometer, and does considerable operative surgery. He has done some thirty or forty extractions since January, by Graefe's method, and expressed himself strongly in its favor.

He, by the way, has fluent command of English. Although young, he has a recognised position among ophthalmologists, and has secured for his institution governmental patronage.

Travelling two nights and one day brought me to Vienna. I passed an encampment of cavalry, a few squadrons, and saw a few field-pieces; but no other signs of the late conflict.

The great hospital, the largest in Europe or in our own country, has two eye cliniques, one by Prof. Arlt, another by Prof. Edward Jaeger, while there is a third in the adjoining military hospital, the Josephenum, under control of Prof. Stelwag.

Inasmuch as this clinique was suspended, I sought Prof. Stelwag at his house. Graefe's operation was alluded to, and he said that he had not performed it, because he knew that Arlt was working it out. He performs the lower corneal section.

He is getting up a third edition of his Hand-book of Ophthalmic Medicine and Surgery, and told me that he had much to add in new colored ophthalmoscopic illustrations.

It is his good fortune to have the aid of Dr. Wedl, a good microscopist, ophthalmoscopist, and draughtsman. The chromo-lithographs which come from Vienna are of unsurpassed beauty; and I may say, *en passant*, that Stelwag's treatise is acknowledged to be the best existing in Germany, and really up to the wants of the practitioner.

Prof. Jaeger's clinique was in disorder by reason of cleansing operations in his wards. I was told that he is getting up another set of ophthalmoscopic plates.

In Prof. Arlt's clinique I found abundant material. He has seventy beds, and they are always full. The visit is made at 9 o'clock A. M., and at 11 begins the ambulatorium; so that 1 o'clock comes before the eye patients are all disposed of. I saw here more cases of Graefe's operation than anywhere else. About eighty operations have been done; and Arlt told me that he thought he secured about two per cent. more successes than by his old method, viz. flap extraction and upper section.

He is known as one of the most dexterous operators; and this apparently slight increase of success means more than if it occurred to an operator of less skill. I saw three of his operations, one of them a simple case and easily done; another in a man whose spasmodic muscular contractions offered the greatest difficulties; and a third in a woman whose lens had undergone extreme secondary degeneration—crystals of cholesterine being visible in it. In all cases the lens was removed, and all did well afterwards.

I saw fifteen cases which had thus been operated on; one a case of diabetic cataract successfully. But one patient out of all did badly; and for her a partial result would be secured.

Dr. Becker, Arlt's chief assistant, and an able man, was most decided in praise of the operation. Secondary operations were needed more frequently than by the old method; but it had, in his opinion, a wider range of application, and yielded better results. They have never used the hook or the spoon save exceptionally. One point which tells decidedly in favor of this operation, was insisted upon by Dr. Becker, that it can deal successfully with unripe cataract. Thus a long period of partial blindness and unhappiness may be saved to the patient.

I was led to enter the clinique of Prof. Benedict, who is engaged in electro-therapeutics. The subject does not appear to be much connected with ophthalmology, but has, in fact, intimate relations with it. I found him treating a large number of cases of diseases of the nervous system, and among them many of paralysis of the ocular muscles. The rational uses of electricity in its various forms are little known in our practice. We leave it too much to pretenders; and in all cases of cerebral affections Dr. Benedict resorts to the ophthalmoscope. The need of so doing was illustrated in the following case most strikingly: A man about forty years of age had disease declared to be cerebellar. Loss of memory, unsteadiness of gait, and other symptoms, made the diagnosis sufficiently clear. He was able to be about, and nothing seemed to call for any inspection of the retina. His vision was perfectly good. He read Snellen twenty at twenty feet. Visual fields were perfect. No test was made of his power to discriminate colors. When the ophthalmoscope was used, there was found the most strongly marked neuro-retinitis; congestion, swelling, and infiltration of the optic nerves; engorgement of the retinal veins; thickening of the retina near the nerve, but no ecchymosis. The case was most undeniable, but the absence of functional disturbance was most astounding.

Dr. Becker called it neuritis descendens, indicating its propagation downwards from the brain. These phenomena had subsisted for weeks; were the same in both eyes. I examined the case, and was quite nonplussed at the contradiction between objective and subjective signs.

This case points out most significantly the importance of studying the optic nerves when there exists cerebral trouble. Surely our hospitals cannot afford to throw away such knowledge. And furthermore, why should they not have eye wards attended by competent men,

who can enter the higher walks of ophthalmology? Such men must have patients enough to give them a proper field for study; and while they profit themselves, they will not fail to add in an equal degree to the advantage of their associates, who may be general surgeons and physicians.

Sincerely yours,

HENRY D. NOYES.

HOSPITAL APPOINTMENTS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—Not long since, a vacancy in the Medical Board of one of our large Metropolitan Hospitals was created by the death of one of its members. As the position of Attending Surgeon to such a hospital as Bellevue is a very desirable and honorable one, of course applicants were not wanting for the place. This is, of course, nothing more than could be naturally expected, and under ordinary circumstances there would be no excuse for alluding to the fact. Every one who is interested in the good of hospitals and their proper management is desirous of seeing the best man win, and the more competition there is the more chances there are for making a good choice. All that any one has a right to ask is, that the struggle for the place should be a fair one.

This, I am sorry to say, in the present instance is not the case. In fact, I speak advisedly when I say that it is the declared object of the various medical colleges to prevent all such as are not connected with them from becoming members of the attending staff. Of the number of applicants for the position of surgeon in that institution, but two have been acknowledged to possess any chance whatever. One is a distinguished professor in a college, and the other, although a gentleman of extensive experience and known ability, is not connected with any medical institution; in other words, is not a professor.

I do not pretend to say anything particularly of the respective qualifications of these two gentlemen, further than that either would fill the place well, and that in case of the appointment of either, the patients would be equally well cared for. The question does not turn upon that point, but as to whether a professor or non-professor should have the place. As a matter of principle, I claim the colleges have no right to appropriate to themselves all the desirable places. Now, before going further, I may claim for myself the privilege of having an opinion upon this matter, as I am not a candidate for the position myself, neither am I personally acquainted with the gentleman whose cause I propose to advocate.

I think that the principle sought to be established by the colleges is a very unjust one, and that it is high time that the outsiders in the profession should be prepared to maintain their rights. The truth is, that the college professors have already almost monopolized all the positions in the hospitals, and it seems to be almost an impossibility for any one else to have anything like a decent show in the contest.

I am as well aware as any one of the good which public teachers can accomplish when they have the means for so doing. But I would ask if they have not had all the chances and places they can in reason and justice ask for. Indeed, I think I am warranted in saying, with all due deference to their aggregate ability, that they have had more than they deserve.

No sooner does a vacancy occur such as I have mentioned, than the faculties of the colleges set their heads together to recommend their respective candidates, as if they had a right to ignore the claims of others who are equally entitled to the privileges of practising their profession in the wards. I am, sir, at a loss to understand the right they have to do so. Is it because none but gentlemen who occupy chairs in our colleges are competent to hold places of trust in our public institutions? It would certainly seem so, judging by what has already occurred.

I am as much a friend to clinical teaching for students as any one can be, but I cannot see why any gentleman cannot teach the students, if he is so disposed, without being a lecturer or a professor.

The rivalry which now exists between our metropolitan schools for the possession of clinical advantages, is commendable enough in its way, but it is carried too far when a demand is made to have this one and that one appointed, because he is connected with a particular college. It is well known that in these contests for places, the representatives of the faculties are so numerous and strong, that they quietly ignore any who may not be connected with them, insist upon having everything their own way, and are so engrossed in what they term "the interests of their schools," that they look on the claims of non-professors as simply presumptive.

It becomes a very serious question when we discuss the propriety of making our public institutions subservient to the interest of any school, howsoever excellent that school may be. Is the profession at large to be coolly denied the privilege of holding places in our hospitals because this or that school claims an appointment? Are medical men generally so interested in the welfare of this or that institution, that they must not aspire to any place of trust which they may feel qualified to fill?

The points at issue in the present case are of great interest to every medical man, and should claim more than ordinary attention. No one except those directly interested can predicate the result of the struggle; but the mass of the profession, I think, with your correspondent, will tender their sympathies with the bold innovator who dares dispute the rights of any to ignore his claims on the simple ground that he does not have something more than the mere capability to discharge his duties.

I am, sir, truly yours,

E. P.

NEW YORK, Nov. 20, 1866.

PERSULPHATE OF IRON FOR VARICOSE VEINS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR DOCTOR—In your report of my remarks at the meeting of the Academy of Medicine, November 7, you make a mistake in stating that I advised the Persulphate of Iron of a strength equal to *one part of the salt* to thirty of water, in the treatment of varicose veins. It should be one part of the *solution of Persulphate of Iron* to thirty of water. I have used this strength many times successfully in the treatment of varicose veins, and had the clot entirely absorbed without ulceration. Please make the correction.

Yours truly, A. N. BELL.

BROOKLYN, November 16, 1866.

HOOPING-COUGH.—Dr. Unsicker (*Cin. Lancet & Observer*) reports favorably on the use of strong tea made of the dried leaves of the common chestnut-tree (Fagus Castanea) in mitigating the paroxysms of hooping-cough. He also claims that its employment is attended with an actual shortening of the disease.

New Instruments.

A NEW FORCEPS FOR THE EXTRACTION OF FOREIGN BODIES FROM CANALS AND CAVITIES.

The difficulty which attends the extraction of foreign bodies from canals and cavities has given rise to the construction of many ingenious instruments for the purpose. When an object is brought in sight the most ordinary means will suffice for its extraction; but when the surgeon has to grope for it literally in the dark, he has need for all those appliances which the skill of the mechanician can place in his hands. A great fault with many of these instruments has been their want of simplicity and effectiveness when put to the actual test of practice; and very many of them, it is well known, do more harm, by the injury they inflict upon the soft parts, than good. While we do not feel warranted in saying that the instrument (Fig. 1)which we have figured, and which has been devised by the Messrs. Tiemann, of this city, is perfection, still it possesses advantages over others in common use which should recommend it to surgeons for trial.

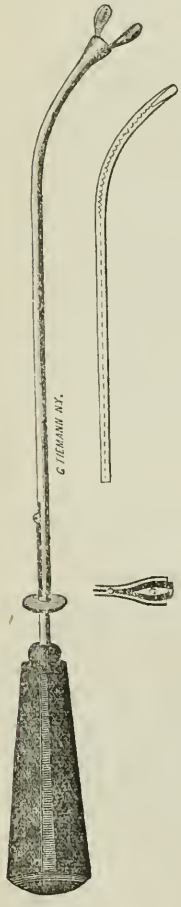

Fig. 1.

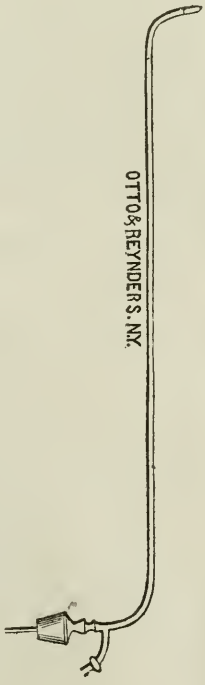

Fig. 2.

It consists of a curved tube, slightly expanded and opened at its free extremity. Through the long diameter of this tube passes a rod, to the end of which, corresponding to the curve of the instrument, there is attached a twisted or cable wire to give it the required flexibility and stiffness. To the extremity of this cable wire there are attached, by means of a hinged joint, two equal, smooth, and curved blades. At a certain distance from the expanded end of the tube there is a pivot which passest hrough it from side to side, and which is situated between the two blades. When the instrument is to be used the blades are drawn into the tube by means of a simple motion of the handle, and it is passed into the canal until it comes in contact with the foreign body to be grasped. So far it acts as an ordinary probe. When the foreign substance is reached, the handle to which the rod is attached is gently pushed towards the tube, when the blades of the forceps naturally open until the joint comes against the pivot. The form of end of the tube prevents them from opening beyond a certain distance.

The instrument will doubtless prove serviceable in the extraction of foreign bodies from the trachea, œsophagus, and urethra. There is no room on either side of the blades for the pinching of any folds of the mucous membrane; and while as a forceps it is open to the objection of perhaps grasping more than the foreign body itself, still, by a little shifting of the instrument, and with care in the adjustment, this may be obviated. The forceps is an improvement on any of the kind which we have seen, but, as before intimated, it is not yet a perfect one. For instance, it will be seen that in case a foreign body, longer in one diameter than another, becomes impacted in a canal, unless that long diameter corresponds with that of the pivot, or nearly so, the blades cannot obtain a hold upon it. This objection might be removed by having the tube more or less straight, which would enable it to be revolved upon its long axis, but it would then be useless as an œsophageal or tracheal forceps.

THE VAPORIZING CATHETER.

We are now placed in possession of an instrument to apply vapors directly to the internal surface of the bladder by a modification of Richardson's apparatus. The tube of this celebrated atomizer is simply lengthened out in the form of a catheter, which has the shape of Fig. 2. For obvious reasons the smaller tube of the apparatus is continued to the extremity of the larger one, where there is a small aperture for the escape of the vapor. The bladder is first emptied, and the stopper of the bottle being removed, the catheter is passed, after which the cork being replaced, everything is ready for the application. As the vapor is thrown in by the pressure upon the hand bulb the bladder gradually expands, and every part of its internal surface as it is unfolded receives the vapor. It would be much more convenient if the catheter could be detached from the rest of the tube, but this is attended with a difficulty, as it is necessary to have the capillary tube continuous. The instrument has been manufactured by Messrs. Otto and Reynders, at the instance of Prof. Crawcour, of New Orleans.

A New Medical Journal.—Dr. Robert Stone, of New Haven, proposes to edit a monthly journal containing abstracts from all the leading foreign periodicals. The subscription price will be $5 per annum. The enterprise is a very worthy one, and we hope that it will receive the patronage to which his fitness to the task entitles him.

Limitation to the Number of Attendants upon the Hospital Clinics.—It has been recently decided by a vote of the Commissioners of Public Charities and Correction that, for the future, no professor be allowed to introduce at one time more than twenty-five students to his clinics in any of the Charity Hospitals.

Obituary.

REV. W. M. VAN WAGENEN,

NEW YORK.

At the opening meeting of the Medical Students' Christian Union, held at the Young Men's Christian Association Rooms, the following resolutions were unanimously adopted:

Whereas, God in his allwise providence so suddenly removed our friend and brother, Rev. Wm. M. Van Wagenen, late President of the Medical Students' Christian Union, therefore,

Resolved, That we mourn the loss of one whose gifts and acquirements fitted him to discharge with honor and success the duties of a Christian physician; one whose genial disposition and ever ready interest in the welfare of others endeared him to a wide circle of friends.

Resolved, That, as a society, we desire to express our Christian sympathy to the relatives of the deceased, and to emulate the virtues which characterized his association with us.

Resolved, That a copy of these resolutions be transmitted to the relatives of the deceased; also to the *Episcopalian* and Medical Record for publication.

Committee { Henry C. Houghton, University Medical College; A. C. Treat, Bellevue Hospital College; P. C. Arcularius, College of Physicians and Surgeons.

CHARLES H. WOOD, M.D., U.S.A.

Died, in Selma, Ala., on the 13th of October, 1866, Charles H. Wood, M.D.

Dr. Wood served during the war as Surgeon, U.S.A., and was appointed Brevet Lieut.-Colonel for faithful and meritorious services in August, 1865. He was mustered out of service in the same month. He entered the service of the Freedman's Bureau in October, 1865, and was assigned to duty in charge of the Freedman's Hospital, Selma, Ala., which position he held at the time of his death.

New Publications.

A Treatise on the Practice of Medicine. By Geo. B. Wood, M.D., LL.D., President of the American Philosophical Society, President of the College of Physicians of Philadelphia, etc., etc. Sixth Edition. In two vols. Philadelphia: J. B. Lippincott & Co. 1866.

Inhalations in the Treatment of Diseases of the Respiratory Passages, particularly as effected by the use of Atonized Fluids. By J. M. DaCosta, M.D., Physician to the Pennsylvania Hospital, etc., etc. New York, 1866. From Author.

Transactions of the Medical Society of the State of Pennsylvania. Seventeenth Annual Session. Published by the Society. Philadelphia, 1866.

Eleventh Annual Report of the Births, Marriages, and Deaths in the City of Providence for 1865. By E. M. Snow, M.D. Providence, 1866.

Transactions of the Twenty-first Annual Meeting of the Ohio State Medical Society. Cincinnati, 1866.

Conservative Surgery, as Exhibited in Remedying some of the Mechanical Causes that operate injuriously both in Health and Disease. With Illustrations. By Henry G. Davis, M.D., Member of the American Medical Association, etc. New York: D. Appleton & Co. 1866.

Cerebro-Spinal Meningitis; being a Report made to the Illinois State Medical Society, held June, 1866. By J. S. Jewell, M.D., Professor of Anatomy, Chicago Medical College. Chicago, 1866.

Clinical Observations on Functional Nervous Disorders. By C. Handfield Jones, M. B. Cantab., F. R. C. P. London, etc. Philadelphia: Henry C. Lea. 1867.

An Introduction to Practical Chemistry, including Analysis. By John E. Bowman, F.C.S., late Professor of Chemistry in King's College, London. Edited by Charles E. Bloxam, F.C.S., Professor of Practical Chemistry in King's College, London. Fourth American from fifth Revised London Edition. Philadelphia: H. C. Lea., 1867.

Medical News and Items.

PERSONAL.

Baron Wattmann, the Nestor of the Medical Celebrities of Vienna, died of cholera, on the 15th September.

Professor Rostan, of Paris, died of diabetes, at the age of seventy-seven years, very recently. The following anecdote is told of him, as characteristic of his affection for his students: When he saw that he was near his death, he had no rest until he was transferred from his residence to the Latin quarter, saying, "I do not wish that my dear scholars shall have so far to go, in order to accompany me to my last resting-place."—*Wiener Medicinische Presse.*

Professor Sigmund, of Vienna, has procured the necessary apparatus and re-agents for his clinic in the General Hospital, in order to find, if possible, a method by which the secretions and excretions of those treated with mercury may be examined, and the quantitative contents of quicksilver determined.—*Wiener Medicinische Presse.*

Professor Esmach, of Kiel, has the general superintendence of the Military Hospitals in Berlin, having been called to the position by the Queen of Prussia, on account of his great reputation as a surgeon. The Doctor wishes to have hospital barracks erected according to the American method. The advantages of the American hospitals consist in the facility of their erection, in the convenience of their position, in the easiness of ventilation, and in their general convenience. The matter of the erection of such hospitals will be probably favored by the International Union at Geneva.—*Wien Militärarztlische Zeitung.*

Dr. Adam Politzer, the distinguished aural surgeon, of Vienna, has received a diamond ring from the Emperor of Russia.

Dr. Moos, teacher of aural surgery in Heidelberg, has been made Professor of this branch of medical science.

Mrs. Dr. Mary Walker has become a hospital walker in London. Her trousers are wickedly described as a little tighter than they used to be, and her umbrella, if possible, more voluminous. The *Lancet* says: "We are quite sure that our professional sister will receive every courtesy and attention at the hands of the authorities and gentlemen engaged at their studies."

Dr. David D. Richardson, for several years physician to the Northern Dispensary of Philadelphia, has been elected Chief Physician to the Insane Department of the Philadelphia Hospital (Blockley).

Dr. J. W. Wood, of Atlanta, Ga., is now in our city soliciting aid for a proposed "Free Hospital," to be established in the former place, to supply the needs of all residents and strangers, irrespective of color or condition.

Col. A. G. Myer, who entered the service in 1854 as an Assistant Surgeon, but was transferred from the Medical Department as a reward for his invention of the old signal system, has lately been appointed Chief Signal Officer, U.S.A.

Dr. William C. Roberts has been appointed by the Academy of Medicine to deliver the eulogy upon the late Prof. Joseph M. Smith.

Dr. Brown-Séquard, now of Cambridge, Mass., will shortly deliver before the same body two lectures on a topic relating to some of the symptoms of brain disease.

Dr. A. M. Shew, late an assistant physician in the State Lunatic Asylum at Trenton, N. J., has been selected to fill the position of Superintendent to the proposed Hospital for the Insane at Middletown, Conn.

Dr. John Shrady has been elected by the New York Medico-Historical Society editor of the forthcoming volume of the New York Medical Register.

Dr. J. W. Brooks has recently been appointed to the chair of Anatomy, Physiology, and Hygiene, in the Chicago University.

Medical Society of the County of New York—Sixty-first Anniversary.—The members of this Society met in the Hall of the College of Physicians and Surgeons, on Monday evening, November 12. The minutes of the previous meeting having been read, a resolution of thanks to the retiring President of the Society was warmly applauded.

Dr. Finnell returned thanks for this manifestation of their good wishes, and remarked that the condition of the Society had materially improved, no better evidence of which could be offered than the fact that during the past year they had added to their list the names of some forty new members. He did not wish to detain the gentlemen by any extended remarks, and again repeating his thanks, he would conclude by asking for his successor the same kind feeling and attention which had always been given him in his position as their President.

Dr. Samuel T. Hubbard, his successor in office, after being introduced, gave an interesting historical sketch of the Society, in the course of which he stated that the lifetime of two generations had passed away since its formation, only one of its members, Dr. Benjamin R. Robson, still an honored associate, and for many years its Treasurer, now representing the past.

The Society then adjourned, and, forming in procession, went to the Twenty-third street Hall, where a collation was set out.

The hall was handsomely decorated for the occasion with flags, banners, baskets and wreaths of flowers. Behind the chair, on a draped pedestal, the bust of Washington was placed, and on either side rich gilt vases of artificial flowers. About two hundred and seventy gentlemen were present.

Dr. Ellsworth Eliot, Chairman of the Committee of Arrangements, then, as Master of Ceremonies, announced that the hour had arrived for a feast more spiritual than that which had passed away before them, and he had great pleasure in calling to inaugurate that intellectual feast a gentleman present among them who was not a doctor, and yet he was a doctor—one who was said to have been born under a lucky star, and whom they were proud to claim as the son of a physician—John T. Hoffman, Mayor of the city of New York, and, *ex-officio*, a member of the Society.

Mayor Hoffman playfully alluded to the fact that he was an *ex-officio* member of more than one society, but that these offices, like his own position in the body politic, although not endowed with any remarkable powers, had the advantage of being unburdened by responsibilities. He said that he appreciated the honor done him and the compliment about the star. He anticipated that the shower set down for after midnight was about to take place before it, if doctors would only show that they could speak as well as they could eat. He was the son of a doctor, and came very near being a doctor himself. He wouldn't say how near, lest he should alarm the public even with the thought of the narrow escape they had. He was also proud to claim the late Dr. Richard K. Hoffman as an uncle, and the Kissams, whom all delighted to honor, as kinsmen. As evidence, too, of the faith that was in him, and of its orthodox character, he would say that he has lately had some need of doctors, and has sought their advice. He was advised by some of his friends to try the homœopathic system, but he preferred clinging to the faith of his fathers. [Laughter.] He had been making a great many speeches lately, and he was sorry to say to very little purpose [laughter], but he attributed all his ill-luck in the recent election to the fact that the doctors were against him. [Cries of "Oh, no!"] Oh, yes, it really was so, for he was expected to subscribe to every *pathic* that was proposed to him by Boards of Health, Police Commissioners, Fire Departments, Boards of Excise, and so forth, and failing to do so, lost the suffrage of their practitioners. [Great laughter.] He knew they were not anxious for a long speech, even if he were able to give it, which he was not; he could, therefore, only ask leave to remain a little longer that he might get his share of the meteoric shower which was sure to fall around him, if gentlemen would only discover their own brilliancy. [Laughter.] He hoped, however, if there were any gentlemen present officially connected with the Fire Department, that they would allow their little shower to pass by without sounding any alarm, as he doubted the possibility, at this late hour, of giving proper entertainment to all the admirers that an alarm would bring forth. [Laughter.] He also trusted that his good peaceful fellow-citizens of New York would not receive to-night, above all others, the visit of an epidemic. What would become of New York in such an event, with all her doctors dining out, was too melancholy to contemplate; and lest such a catastrophe should be set on foot, or in any way contributed to, by his prolonging his speech, he would respectfully take his leave. [Great cheering and laughter.]

A gentleman then sang "The Flag that waved for ninety years."

Dr. Joseph C. Hutchinson, President of the State Medical Society, followed in response to a toast in honor of that body. He gave many details relative to its organization and the objects of its formation.

Dr. J. T. Conkling, President of the Medical Society of Kings County, then responded in a few appropriate remarks to similar honors accorded his own organization.

A humorous song was then sung, after which the Society of Westchester County was toasted.

Dr. Currie, its President, claimed that this Society was even older than its New York neighbor, and possessed the additional advantage of having never been given up by the doctors. He alluded to the many brilliant names given to the profession by his county, to all of which none of the company present dissented.

Dr. James Anderson, President of the New York Academy of Medicine, gave a history of that corporation, as the best reply to the honors tendered it on the occasion.

Dr. Willard Parker responded in behalf of the Health Board, and extolled the value of enforced sanitary laws. He said that the time had come when Hygeia was to occupy the pedestal made vacant by the deposed Æsculapius.

Dr. James R. Wood spoke warmly of the public institutions of the city, and was proud of its magnificent charities. He commended the liberal spirit of the Medical Society of the county, whose policy had always been opposed to the ruling of cliques. He also urged in its favor, that it was the only society which conferred a *legal* status upon its members.

The entertainment then concluded with "Auld Lang Syne" by the whole company.

The whole affair, thanks to the Committee of Arrangements, and especially to its chairman, whose ready tact put all at ease, was a decided success. As an act of justice to Dr. Richard T. Underhill, an old member of the Society, we may state that he apologized for his non-appearance by a quantity of antique wine, from his Croton Point Vineyard, which was satisfactorily discussed by the guests.

Our German Exchanges.—The German journals on our exchange list show their appreciation of our contributors, by copying quite frequently from our pages. Articles by Professors Post, Van Buren, Flint, Drs. Sabine, Chamberlain, and others, we find translated in their columns.

An Operation for Fistula in Ano Two Hundred Years Ago.—M. Le Roi, in his *Curiosités Historiques*, gives the following interesting account of a "grand operation" performed on Louis XIV.:

On the 18th of November, 1686, Versailles was astounded with the news that Louis XIV. had undergone the "*grand operation*," as it was then called, for fistula *in ano*. An abscess at the margin of the anus of the king had been discovered in February, 1686; a Felix de Tassy, his chief-surgeon, at once proposed to open it. But, as Dionis remarks, "the deference to opinion necessary for a cure is not always found among the great." A thousand *infallible* remedies were immediately proposed; and of these, a plaster made by Madame de la Daubière was selected as preferable to the lancet of the surgeon; and madame herself, as the chronicle tells, assisted in its application. The plaster, however, was removed five days later, having only increased the king's sufferings; and it was at last resolved, on the twenty-third, that the abscess should be opened. But, contrary to the wishes of Felix, caustic was used for the purpose, instead of the knife. The result was that, when the caustic slough fell off, "the pus ran out of a small hole." Soon afterwards it was discovered that the fistula communicated with the interior of the gut; and an operation for its cure was therefore necessary.

Hereupon the king was again overwhelmed with the promises of infallible curers of *tumors*. Louvois, the minister, however, being in some sense responsible for the life of the king, would not allow any of their remedies to be applied to the king without having them previously tried on others. Thus, for example, the use of the waters of Barèges having been recommended, and having taken the fancy of the king himself, four persons with fistula were sent to Barèges, under the charge of Gervais, surgeon of La Charité, who had a great reputation in the cure of tumors. They were treated in a variety of ways, internally and externally, with the waters, for a long time; but the result was, says Dionis, that at the end they were no nearer a cure than when they started for Barèges. Next came a court lady, who reported that she had been cured of a fistula at the waters of Bourbon. Consequently four other patients with fistula were sent there, under one of the king's surgeons; but they also returned uncured. Still Louvois was besieged with promises of a cure; and, not wishing to throw away a chance, had several rooms in his ministerial hotel at Versailles fitted up for the reception of all fistula *in ano* patients who were willing to have remedies tried upon them. The experiments were carried on for a length of time; but all the *infallible* waters, ointments, etc., turned out complete failures.

Of all these proceedings the king was informed by Louvois and Felix, who urged upon him that all attempts to cure the fistula without operation were in vain. Before finally deciding, the king sent for Bessières, who was then in great repute at Paris; and by him was told that "all the remedies in the world would do nothing without an operation." Thereupon the king determined to undergo the operation. But *what* operation? At that time there lived at Paris one Lemoyne, who had great repute as a curer of fistula. Of him Dionis writes:

"His method consists in the use of a caustic, spread over a little plug, and introduced into the opening; this plug is enlarged day by day, so as to destroy all callosities and sinuses. By this process, and with plenty of patience, he cured many a fistula. He died old and rich, and he made the people pay well; and in this he was right, as the public only esteem those things which cost them dear. All patients who dreaded cutting fell into his hands; and as the number of cowards (*poltrons*) is always great, he never wanted for practice."

The ligature was the plan most in use; but Felix preferred the knife. Felix, therefore, was called upon to describe to the king the entire history of these different remedies. Caustic, he told him, produced continual pain for five or six weeks. The ligature required a long time to cut its way through, and also needed frequent tightening, and so constantly produced pain. The pain of incision was, he admitted, sharper, but then it was only for a moment; and the cure by incision was certain and rapid, and this could not be said of either the caustic or the ligature. Felix's arguments, supported by those of d'Aquin, Fagon, and Bessières, decided the king for incision. Felix was a bold man; for at that time the operation by the knife was looked upon as a great and terrible affair. But Felix was not an ordinary man. He was the son of the king's surgeon, Felix de Tassy; had been carefully educated by his father, in hopes that he would become his successor; and at an early age was celebrated as a skilful surgeon. In 1676 he, in fact, became first surgeon of the king. But, while experiments of the "curers" were tried, he read everything which had been written on the subject; and, what is more, operated on all the patients having fistula *in ano* who were received into the Paris hospitals and into La Charité at Versailles. When, therefore, the king at length resolved upon the operation, Felix had become a master in its performance.

Felix used a modification of Galen's syringotome. It was a very narrow curved knife, terminated by a stylet several inches long. The cutting part of the blade was covered with a silver sheath. This instrument was introduced through the fistula into the rectum, and then brought out at the anus. The sheath was then gently withdrawn; and the knife, now laid bare, held by the hand and by its stylet end, was at once made to cut its way out. This knife received the name of the *Royal Bistoury*.

The operation was performed on November 18, 1686.

The king had kept his intention a secret. He came to Versailles on the 15th; and on the 17th he rode out publicly on horseback. On the 18th, at five o'clock in the morning, the apothecaries administered a lavement. A little before seven, Louvois brought Madame de Maintenon to the king, who was found engaged with Pere de la Chaise, his confessor. In the Cabinet des Bassans were assembled Felix, d'Aquin, the king's chief physician, Fagon, Bessieres, the four royal apothecaries, and Laraye, Felix's pupil. At seven o'clock they entered the king's room. Louis XIV. made Felix show and explain to him the instrument, etc.; and then with perfect confidence, and most composedly (as we are assured), placed himself in Felix's hands. The operation was performed in the manner above indicated; and then, with eight cuts of scissors, Felix removed the callosities which were exposed when the incision was made. Louis bore the operation without a cry or a word. A large plug of charpie, covered with oil and yolk of egg, was then forced into the wound.

Consternation seized all the courtiers when they heard that the king had undergone this *dangerous* operation. For the first few days afterwards, things went on well; but, on December 7th, it was found necessary to destroy the new cicatrix, and to lay bare the fistula to its base. After this second proceeding, the operation succeeded.

Felix was well rewarded. His fee was 50,000 crowns, and the estate of Mouhineaux, estimated at a like value. D'Aquin received 100,000 *livres;* Fagon, 80,000 *livres;* the four apothecaries, each 12,000 *livres;* and the pupil Larraye (who was not forgotton), 400 *pistoles*—the sum paid amounting altogether to about £40,000! Felix's practice now naturally became very large; for, as Dionis says:

"Fistula *in ano* has become a fashionable disease since the operation was practised on the king. Those who had before, through shame, concealed the disease, now made it public; and many went to Versailles to undergo the operation, because they knew that the king made inquiries about all operations of the kind. Some even, who had simply hæmorrhoids, or a slight discharge, were angry when they were told there was no necessity for an operation."

"Such," says M. Le Roi, "is the history of the operation performed on Louis XIV. Thanks to the happy initiative of Felix, the method of operating by incision was again brought into honor, and has since been generally adopted. A man, indeed, may now adays successfully practise the operation without being first-surgeon of the king—so simple has the operation become."—*Brit. Med. Journ.,*

Alcohol and Tobacco.—The French physicians are running a furious tilt against tobacco, proving by rigid statistics that insanity and various affections especially dependent upon the nervous system increase in proportion to the consumption of the weed. Meanwhile the English, and not a few American physicians, are recklessly carrying alcohol in the opposite direction, and reinstating it in the position of a universal preservative of health and remedy for disease, which it gained centuries ago as "*aqua vitæ*." We say they *are* doing so—rather let us say *have been*—for some are already on the back track; and we find in our medical journals, both domestic and foreign, proofs that the profession begin to regard with suspicion and alarm the universal alcoholic medication of the past decade. In ten years more we shall probably have a Saxon crusade against alcohol, similar to that against tobacco which is now popular in France. The wheel which formerly required a hundred years to turn, now turns in twenty. And we hope to see some of our prominent leaders, particularly in Great Britain, opening their eyes to the weighty truth that they have sown the germs of a ghastly crop, when, under the authority of medical science, they restored intoxicating beverages to their fatal supremacy in social and domestic life.—*Pacific Medical and Surgical Journal.*

Mortality of First Labors.—Dr. Duncan, in the Edinburgh *Medical Journal*, declares on the authority of statistics, that the mortality of first labors, and of puerperal fever following first labors, is about twice the mortality attending all subsequent labors collectively; and that after the ninth labor the mortality increases with the number.

Illegitimacy in England.—No less than 47,448 children were registered in England, in 1864, as born out of wedlock. Even this number does not represent the actual state of things. Owing to a defect in the English registration act, which does not make the registration of births compulsory, many cases are never recorded. Dr. Lankester has stated it as his deliberate judgment, that 16,000 women are living in London whose infant children have been murdered by their own hands.

Hog Cholera in Ohio.—It is a well known fact that the hog cholera is prevailing to a considerable extent throughout the country adjacent to the city. In view of this fact, and also that the price of pork is suffering a considerable decline from anticipated prices, we presume the temptation to avoid loss is too great for some men to withstand. We are informed by authority of undoubted reliability, that it is the practice of many pork owners to kill the hogs when first attacked by the sickness, and send them for sale in our daily market.—*Cincinnati Gazette.*

Longevity in Maine.—There is now living in East Winslow, a Mrs. Hannah Littlefield, who has attained the age of 105 years. She was born in Wells, Maine, July 16, 1761. In Athens, an old lady, now in her one hundred and first year, has this season spun and twisted a large quantity of cotton yarn. A correspondent of the *Portland Star* writes that he has an old lady working for him who, at the age of eighty-seven, has spun this season, so far, four hundred skeins of yarn, averaging from eight to ten skeins per day.

Journals Failed.—We regret to announce that the *Medical and Surgical Monthly*, of Memphis, Tenn., ceased its publication with the completion of its first half year, and the *New Orleans Medical Record* with its third number.

Mixed Vapors.—Two cases of death from mixed vapors of ether and chloroform are referred to in the *Observer* newspaper. Hitherto it was believed that the mixed vapors were harmless.—*Medical Press & Circular.*

Fresh Meat from South America.—According to the *Pall Mall Gazettae*, party of London epicures reently banqueted upon a quantity of prime South American beef and mutton, brought to market as cut from the animal, after a voyage of some six thousand miles. The method by which the meat is preserved in its fresh state is simply the abstraction of the oxygen from the tin case in which it is hermetically sealed. This is done in a very ingenious manner. The oxygen is driven out by water which is poured into the tin from below, and pushes the air before it through an aperture at the top. At the moment it is all expelled, the water is drawn off again, and a non-oxydizable gas, the nature of which is a secret, follows and fills the canister, which is then soldered down.

Original Communications.

AN OBSTINATE CASE OF VESICO-VAGINAL FISTULA

CURED BY THE FOURTH OPERATION.

By WM. WARREN GREENE, M.D.,

PROFESSOR OF SURGERY IN BERKSHIRE MEDICAL COLLEGE.

Early in September last I was consulted by Mrs. D., aged 30, married, on account of a *vesico-vaginal fistula*, from which she had suffered ever since a very severe lapse which occurred about five years previous, when she gave birth to her third child.

She had been under the treatment of two of the leading surgeons in this country—one of whom, at least, has no superior in the treatment of this class of affections, and had undergone three operations without any benefit. She said that at other times some applications had been made, but she had been "sewed up" but three times. There was constant dribbling of urine from the vagina, mingled with mucus, pus, and blood. The labia and inner portion of the thighs were completely excoriated, and the entire vaginal surface abraded, in many places ulcerated, in others covered with patches of dirty aplastic lymph, while its walls were excessively and irregularly thickened and indurated. The anterior lip of the uterus was fissured, and, with the posterior one, extensively ulcerated. The anterior *cul-de-sac* was obliterated by adhesions.

I have rarely seen a more pitiable object. A lovely, intelligent woman, an affectionate wife and mother, completely disqualified for all labor or enjoyment, and, notwithstanding all possible attention to cleanliness, a most loathsome object to herself and friends.

An examination revealed a fistulous opening at the upper portion of the canal, slightly oval in shape, regular and smooth in outline, in which I could just engage the tip of my forefinger, and through which a sound readily passed into the bladder, and from bladder to vagina. At this point there was extreme thickening of the vesico-vaginal septum.

As to the prognosis, I could only say to her that there was a *bare possibility* of a cure by another operation; but I thought all the *probabilities* were on the other side. She decided to take the chance; and after three weeks of quiet rest in bed, during which time attention was solely directed to allaying inflammation and healing the abrasions and ulcerations as far as possible, I made the operation, assisted by Drs. H. H. Childs, Smith, and Paddock, of this place.

The patient, being thoroughly etherized, was placed in the ordinary position for lithotomy; and the speculum being introduced, the parts were fairly exposed to view. I have always heretofore in such operations used Sims's speculum; but in this case I, for the first time, used one which I had conceived would be more simple and better adapted to the purpose, and which Tiemann & Co. recently manufactured for me. I am so well pleased with it (as are all who have seen it used), that as soon as I have modified it a little, I shall describe it in the Record.

I now incised the fistulous edges above and below, so as to extend the opening in this direction to about one inch and a quarter—thus enabling me to bring the pared edges in apposition with greater ease and accuracy. I selected this direction in preference to the transverse, on account of the adhesions and greater amount of thickening upon the upper side. The edges were very *thoroughly* refreshed, and after the hæmorrhage, which was inconsiderable, had ceased, they were brought in coaptation and retained by four silver sutures. These were inserted a full half-inch from the edge of the fissure, emerging at a corresponding point on the opposite side, and including all the tissues except the mucous membrane of the bladder. No plates or buttons were used.

She was then put in bed, in the supine position, Sims's catheter introduced, and, after the effects of the ether passed, took one-eighth grain of morphia. She remained thus, with no special treatment, the catheter being exchanged and cleansed once or twice in twenty-four hours, for thirteen days, when the sutures were removed and the parts found to be perfectly united. It is now three weeks since the stitches were removed, and the parts are perfectly sound. So thickened and indurated were the urethral walls, and so large the canal, she was at first troubled by the dribbling of the urine outside the catheter, and also somewhat from imperfect retention after the instrument was dispensed with. But she is improving in this respect daily, being able at times to hold her water four hours. She is now in excellent health and spirits. To those who are familiar with this distressing malady and its treatment, the main point of interest in this case is the encouragement it affords us to persevere in spite of repeated failures, and it is on that account, especially, that I report it.

Pittsfield, Mass., Nov. 5, 1866.

ELECTRICITY AS A TONIC

IN ANÆMIA, DYSPEPSIA, AND GENERAL DEBILITY,

WITH ILLUSTRATIVE CASES.

By GEORGE M. BEARD, M.D,

NEW YORK.

That electricity is of great service in certain forms of paralysis is a fact long since recognised by the profession, but until within a few years its wonderful tonic powers had not even been thought of. The researches of Meyer and Remak in Germany, and of Duchenne and Becquerel in France, have done much towards the development of the remedial uses of this mysterious agent; and the success that has attended their experiments in the treatment of nervous disorders is worthy of far more attention than it has hitherto received.

For while it is true, as is commonly supposed, that galvanization and faradization* are specially indicated in certain forms of paralysis, it is also true that they are still more valuable in general nervous debility, whether it manifests itself in the shape of dyspepsia, chorea, neuralgia, anæmia, or amenorrhœa. For a number of chronic, asthenic affections, faradization is a far safer as well as more effective remedy than any internal tonic with which we are familiar. If it be applied thoroughly, with the negative pole at the feet, and the positive down the spine and over the stomach and bowels, its immediate effects are in some cases exceedingly exhilarating, and if regularly and faithfully repeated it permanently benefits the whole digestive apparatus.

Case I.—Mr. E., a gentleman twenty-three years of age, presented himself, complaining of loss of appetite, hypochondriasis, and great nervous depression. He was a tall, spare man, somewhat above the medium height, with sunken eyes, and a sallow, anxious countenance. It was evident that he had lost all his enjoyment of life.

When he first came into our office, he stated that for

* For the benefit of those who have not given the subject special attention, it may be well to explain that galvanization refers to the use of the primary current, and faradaization to that of the secondary.

a year and a half he had been the victim of extreme nervousness, and had found it very difficult to perform half of his duties where he was employed. He said that it was impossible for him to confine himself to his writing-desk for any length of time, but that he was obliged to throw aside his pen and walk about to find relief. Constipation and vertigo were prominent symptoms, and the patient was evidently in an anæmic state. He had taken much medicine, with only temporary and partial relief. When the electricity was first applied to him in the early part of July he could bear only the slightest current. He continued to come regularly every third day until the first of August, with gradual but marked improvement. The constipation was entirely cured; the vertigo no longer annoyed him; and he could stand or sit at his desk all the day without inconvenience.

Case II.—Mr. F., a broker, about thirty years of age, came to us one day for the purpose of trying electricity as a last resort for the cure of a peculiar and aggravated form of neuralgia. He was a short, puny youth, with a hollow, unhealthy cast of expression, but of an exceedingly nervous, vivacious temperament. The muscles of his chest and extremities were small and soft, and the horrible agonies he had endured seemed to have left their impress on the whole system. The case is somewhat remarkable.

He stated that for over two years he had been a great sufferer from severe paroxysms of pain near the region of the kidneys. The attacks came on periodically every eleven days, seldom varying more than twenty-four hours, and lasting from one to two days. He had taken immense quantities of quinine, and had been somewhat benefited by it, as he thought, but the relief it afforded was merely temporary. We examined his urine with care, and arrived at the same conclusion as his previous advisers, viz. that the difficulty was mainly nervous. The patient received his first application the 10th of July, and continued to come every other day until the middle of August.

For the first time in many months he escaped the usual paroxysms, and up to the time he discontinued treatment he had no return of his sufferings.

Case III.—Mr. C., aged fifty-two, first presented himself for treatment October 1, stating that for a year and a half he had suffered from jaundice. The whole surface of the body was of a marked yellow color, and the conjunctiva presented the characteristic appearance. He complained much of anorexia and nausea, but most of all of a continual and overpowering drowsiness.

Electricity was applied on his first visit, and also on the 7th and 16th inst. At the end of the treatment, his skin and conjunctiva had regained their normal color, his mind was clear and bright, and to all appearance the cure was complete.

Case IV.—In the early part of September of this year, a pale-lipped, sad-eyed lady came panting into our office, and almost fell down on the settee before she could begin to tell her story. So exhausted was she with the exertion of ascending one flight of stairs, that her speech was at first only in broken utterances, and we very naturally surmised that she was laboring under some organic derangement of the heart. But the history of the case seemed to point unmistakably towards anæmia as the prime source of all her unpleasant symptoms. She was troubled with great depression of spirits. Amenorrhœa had existed for nine months.

The patient was so hysterical that the first application was given with difficulty. She could endure but the slightest current. Whenever its strength was much increased faintness was at once produced. This extreme susceptibility was, however, speedily overcome, and after the first week, she could bear a current of ordinary severity without the slightest discomfort.

Applications were made every other day for one month, at the end of which time the improvement was most satisfactory. Her appetite was good, her mind cheerful, and her cheeks presented the ruddy glow of health. The menses returned after seven or eight applications. A few days ago she came briskly up the stairs, with a light elastic step, and with a smiling rubicund countenance. All her cardiac symptoms had disappeared, her breathing was natural, and her whole appearance was that of a person in the heyday of youthful vigor.

Case V.—J. D., aged twenty-three, stated that for one year he had suffered from dyspepsia. He found it necessary to exercise the greatest caution in diet, and for months he had been unable to eat a hearty meal without discomfort. So thoroughly had he crucified all his love for the palatable and nutritious, and so narrowly had he restricted himself in table enjoyments, that he had reached that terrible stage when every day was a living death. Since the first appearance of the disease he had lost some thirty-five pounds in weight. During the month of September he received ten general applications, when he reported that he could eat and assimilate the ordinary articles of diet without physical or mental disquietude, and he had regained some twenty pounds of flesh.

We have employed faradization in a number of cases of anæmia and general debility, depending on a variety of causes, and uniformly with most satisfactory results, except when pulmonary tuberculosis existed. Inasmuch as the tonic powers of electricity are very observable in asthenic cases, dependent on or associated with derangement of the nervous or digestive apparatus, it would be natural to infer that consumption, which is essentially a disease of debility, would be speedily benefited by electrical treatment. But it appears that such is not the case.

We find that those who have tubercular deposit in the lungs are not benefited, but are positively injured by the application of electricity. Whenever we have applied it to them they have always complained of exacerbation of their symptoms. It is difficult to find any theory on which this inconsistency can be satisfactorily explained. It may be that the use of the primary current would serve a good purpose in such cases; but so far as our observation goes faradization works evil, and only evil, on patients who have passed into the second stage of pulmonary tuberculosis.

HISTORY OF TWO CASES OF
GUNSHOT FRACTURE OF UPPER THIRD OF FEMUR,

TREATED CONSERVATIVELY.

BY W. M. DORRAN, M. D.,

MOUNT VERNON, N. Y.

Dr. Louis Stromeyer says, in his work on gunshot fractures: "The question is not yet decided whether, under favorable circumstances, it is better to attempt preservation of the limb or to practise amputation in all gunshot fractures above the middle of the thigh." It being yet, according to high authority, an undecided question whether to amputate or to attempt preservation of the limb in such cases, the following history of two interesting cases may be worth recording:

Case I.—Charles K., private, Company I, Seventh

Indiana Cavalry, aged nineteen years, born in Illinois, of slight make, and of the nervous temperament, was admitted into Gayoso Hospital, Memphis, Tenn. (in which I was on duty), April 22, 1864. He was suffering from gunshot wound of right thigh, and from gunshot fracture of left femur. A Minié ball entered over the left trochanter major, passed inwards and downwards, fracturing the femur at the origin of the trochanters, and escaped a little below the trochanter minor; then entered right thigh a little below the apex of Scarpa's space, passed behind the femur, and escaped between the middle and lower third of the external aspect of the thigh. On the day of his admission (twenty-four hours after being wounded), the fractured limb was placed on the double-inclined plane, and cold water dressing applied.

April 30th.—Wounds of fractured limb had become gangrenous. He was then removed to the gangrene ward, and came under my charge. After applying bromine thoroughly to the gangrenous wounds, I placed the limb again on the double-inclined plane; but I found that the action of the iliacus-internus and psoas muscles caused the upper fragment to tilt forwards and outwards to such a degree that the weight of the thigh pushed the lower fragment upwards and behind the upper fragment, producing overlapping to quite a serious degree. To obviate this difficulty I applied adhesive straps to the thigh, forming a loop at the knee, to which a cord was attached and carried over a pulley elevated above the foot of the bed, so as to be on a line with the upper plane of the splint. A weight attached to the end of the cord kept up extension. A short splint was applied over the fracture to keep the upper fragment depressed.

May 4th.—Gangrene occurred in wounds of right thigh also. Bromine was applied as occasion required, and the compound solution of bromine, or chlorinated soda, used as a lotion. May 9th, an ulcer formed on the nates, caused by pressure. May 22d, an abscess formed in the ham. This necessitated the substitution of a straight splint for the double-inclined plane. The lower end of the straight splint required to be elevated about a foot higher than the upper end, so as to keep the fragments in a direct line; and extension from the knee by means of the cord and pulley was still continued.

May 25th.—A healthy condition of all the wounds established, and they are suppurating freely and granulating. The patient has lost much flesh, especially in the fractured limb, which has become very much emaciated. He has been twice attacked with diarrhœa, but each time it was controlled without much difficulty. He is in good spirits now, although his suffering has been exceedingly severe during the past month. There is no attempt at union yet, and but little callus has formed. The upper fragment has attenuated the muscular tissue anterior to it, so that it is almost under the skin.

June 22d.—The wounds of the soft tissues are nearly healed, and the patient has gained flesh since last report; appetite is much improved, and he is cheerful and hopeful. Callus is being deposited quite fast, and the upper fragment, which heretofore required to be kept depressed by means of a short padded splint, has become fixed and depressed; but a false point of motion yet exists. July 22d, wounds of soft tissues are entirely healed, and patient is gaining flesh speedily; fractured limb is increasing in size very fast. False point of motion does not now exist, so the limb does not require splints any longer.

August 24th.—Patient is mustered out of service and allowed to go home with his father, who has come for him. The fractured limb is not able to support his weight yet, but it is firm. There is but little deformity; shortening amounts to an inch and a half only.

In a letter received from him, dated September 2, 1864, he says: "Had a pleasant journey home, and the limb is gaining strength."

Case II.—J. McE., of Company E, Thirty-fifth Iowa Infantry, aged thirty-eight years, born in Ireland; of a stout build, quite muscular, was admitted June 10th, suffering from gunshot fracture of right thigh, received June 6th in Arkansas. The ball entered at the middle of right thigh, anterior aspect, and fractured the femur obliquely. Only one wound of the soft tissues existed, and yet the ball was not found. The limb was much swollen. On admission, the patient was placed under the charge of another surgeon, who placed the limb on the double-inclined plane and applied cold-water dressings. No slough formed in the track of the ball; and, what was rather singular, the wound healed without suppurating. The constitutional disturbance was not great. August 1st, union had taken place, so the splint was dispensed with. August 20th, patient able to move about on crutches. September 12th, the limb is able to support some weight. There is considerable deformity; the thigh is curved; convexity of curve is anterior; shortening amounts to two inches; quite a large callus has formed around the fracture. About this date (September 12th), I was relieved from duty in Memphis and assigned to take charge of General Hospital in Helena, Ark. November 25th, a medical friend wrote me from Gayoso Hospital, Memphis, stating as follows: "October 25th, J. McE. went out on crutches through town; while out he stumbled and fell, and again fractured the femur at the place of the former fracture. An operation was then performed—an incision on the anterior surface of thigh, and an inch of each fragment exsected. This operation was deemed necessary, as it was found that in repair of former fracture coaptation of fragments did not exist when union took place; consequently union took place by means of a ring of new osseous tissue which formed around the ends of the fragments. This explains why a recurrence of the fracture was caused by slight provocation. At the time of second fracture patient's health was good. After the operation a Smith's anterior splint was applied, but at the expiration of two weeks the double-inclined plane was substituted for it. November 1st patient was attacked with bilious diarrhœa, which could not be checked. He had several chills the last week of his life. He died November 23d. On post-mortem examination it was found that sinuses had formed along the planes of cellular tissue. One of them extended to the vicinity of the hip-joint, although a counter-opening had been made posteriorly at the time the operation was done. All the internal organs were found healthy."

The Erigeron Canadense in Gonorrhœa.—Dr. J. S. Prettyman, of Milford, Del. (*American Journal of Med. Sciences*), highly lauds the oil of erigeron as a remedy for gonorrhœa. When the urethral inflammation is severe he precedes the remedy with an active hydragogue, such as ℞.—Pulv. sennæ ʒij; pulv. jalapæ ʒj; pulv. aromatici gr. x. Misce in aq. bullientis f℥ iv. This, when sufficiently cool, should be agitated and swallowed at a dose. "As soon as this operates, give ten drops of the oil (Erigeron Canad.) on sugar, and three hours later a full dose of spts. æther. nit. in infus. altheæ, and so on every three hours alternately until the urethral inflammation is allayed. Then leave off the latter and continue the oil until the cure is complete. If the case is not recent, or there is but little urethral inflammation, the oil alone is sufficient."

Original Lectures.

INFANTILE CONVULSIONS.

A LECTURE DELIVERED DURING THE REGULAR TERM IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE, NOV. 1866.

By GEO. T. ELLIOT, Jr., M.D.,

PROFESSOR OF OBSTETRICS AND THE DISEASES OF WOMEN AND CHILDREN.

(*Concluded from page* 449.)

15. Diagnosis.—My lecture is devoted to such arrangement of the topic as to facilitate the diagnosis, and suggestive remarks are incorporated with the headings. Amplification now would swell the lecture beyond its limits, and trench on hours to be, or which have been, devoted to the further elucidation of many of the subdivisions.

In addition to what has been said, I now enforce the principle that the physician must strive to calm the excitement of the relatives or bystanders as a preliminary step to the information which he must gather for his guidance. The convulsion which is in progress, if it be in progress when he arrives, will probably not be arrested by him. He seeks its meaning, and thence the indications by which he may avert their recurrence, and the dangers which they may foreshadow. The exciting cause is to be sought; and, if susceptible of prompt removal, the most brilliant results may be expected. Scarifications, chloroform, purgatives, leeches, cups, baths, emetics, the bromide and iodide of potassium, assafœtida, and musk, would not have removed that needle from the brain which Trousseau and Blache recognised by that intelligent research which distinguishes the enlightened observer from the routinist.

If the evidences of cerebral trouble persist, if the diagnosis by exclusion has reluctantly suggested that inflammatory conditions within the cranium exist or are to be apprehended, the ophthalmoscope should be brought to bear upon the case in the hands of an expert; and it is obvious that, other things being equal, that expert should be preferred who uses an instrument that can be employed with least brilliant light.

The time has come when the fact should be widely known that hydrocephaloid symptoms can often be diagnosticated from the phenomena of true cerebral diseases by the use of the ophthalmoscope. That congestions of the cerebral circulation interfere with venous return from the fundus oculi; that, as a consequence, the ophthalmoscope can recognise that these latter vessels are over-distended, may present unwonted curves in their course, may show the evidences of stasis in their circulation, may part with their contents, and thus extravasations be visible. The outlines of the optic disk may be obscured; it may be seen through a serous effusion, and as the veins pass into the œdema their calibre may be seen to be shrunken from its pressure.

Let any one read the work of Bouchert on the application of the ophthalmoscope to the diagnosis of diseases of the nervous system, or the work of Galezowski, and remain unconvinced if he can of this great stride in the diagnosis of these diseases. The great difficulties that attend the applications of the instrument in infancy can be surmounted, even though the pupil have to be dilated as a preliminary step; and I have the great satisfaction of learning from Dr. Noyes that the difficulties attending the general use of the instrument in the diagnosis of diseases of the nervous system are such as can readily be surmounted by the willing student, and are within the reach of all.

The laws in optics which have enabled us to foretell eclipses, and predict the arrival of an undiscovered planet; which have displayed to our gaze the existence of countless myriads of microscopic objects heretofore unknown—have found in the ophthalmoscope another beneficent application of their uses in the recognition of conditions of cerebral circulation hitherto hidden from our sight.

The accuracy of our diagnosis is in direct relation to the thoroughness of physical exploration. The senses must be aided by every delicate test which the varied departments of science can furnish. The vagina, the bladder, the larynx, the ear, are illuminated for our thorough observation. The ear is aided by instruments constructed on acoustic principles; the touch by sounds, and probes, and pleximeters; and now the thermometer has taken its rank in that delicate appreciation of the heat of the body which the most refined touch cannot hope to emulate. It finds its applications here in appreciating the meaning of these convulsions, in noting the burning heat of scarlet fever, in marking the progress of inflammations and fevers, of tubercular deposit; in excluding the evidences of inflammatory action. A girl of about ten years was seen for me by my friend Dr. Swift, on Friday evening. The symptoms were obscure, the treatment palliative and expectant. On Saturday, at noon, I found that she had passed a restless and feverish night, coughed some frothy expectoration, with a rust-colored point. In the evening the thermometer marked 102°; a very fine crepitus, on inspiration, over the base of the left lung laterally.

On Sunday morning this had disappeared, nor were there other physical signs appreciable to me then, or in the evening. Chlorides and urates abundant in the urine; sp. grav., good; no albumen or casts. The thermometer marked 101°. I gave a favorable prognosis, but anticipated pleuro-pneumonia; expectoration sufficiently characteristic; believed the disease to be progressing. On Monday morning the thermometer had fallen to 98°, and dulness could be clearly recognised at the base of the left lung, not changeable by position. Chlorides present, and some crepitant râles in inspiration; expectoration less, but pneumonic; general condition good, as on the day before. In the evening the thermometer maintained its rate, and I believed that it indicated that the disease had ceased to advance, notwithstanding the increase of the physical signs. On Tuesday (to-day) all seems favorable; temperature 97°—normal. Monday, 19th—Has done well.

Let us hope that American observers will soon swell the accumulation of facts that must develop the value and uses of these comparatively novel aids to our diagnosis of these conditions.

16. *Treatment.*—Strive to classify the convulsion, in accordance with the suggestions that I have given; to estimate the conditions of which it is the exponent; and follow these indications for treatment promptly. Beware of the dangers of an active routine treatment. It is no more necessary to weaken these little ones by energetic spoliative measures, than it is necessary to bleed again and again in pneumonia, or to touch the gums in the inflammations of serous membranes. *Don't bleed babies.* No one admires more than I do the fascinations of Dr. Chambers's style, or the clear practical ring of his precepts. But I warn you against a recommendation that, "in the case of diarrhœa in babies, the whole abdomen and loins may be fastened up in a large circumambient poultice, which they cannot wriggle away from, one or two leeches put on near the navel, and the bite allowed to bleed for some time." I see the greatest dangers from the resort to measures of this character, in which the vital forces may be so seriously weakened, and the amount and character of the

loss of blood so carelessly estimated. I dissent from the recommendation of Bouchut, that one or two leeches should be applied in the congestions which occur in the new-born. I know that there is risk in allowing blood to flow from the umbilical cord, and especially in the practice of beginners. If your convictions, or those of the consultation, lead to the abstraction of blood, at least approach the decision with all the brakes down. Let the question be, "Why bleed?" instead of "Why not bleed?" It is my belief that thus, with time, the most ardent advocate of systematic abstraction of blood in these convulsions will change his practice. I would reserve the abstraction of blood, if used at all, for cases in older children, where the inflammatory symptoms did not yield to other treatment; where the patient was vigorous; where the ophthalmoscope confirmed the belief that meningitis had commenced; where the vitality, the history, the physical signs, pointed to the beginnings of acute sthenic meningitis in a child capable of supporting the loss of blood; and then I would prefer to see the desired amount of blood taken by a skilful cupper, that I might estimate the exact amount, and add the benefits of counter-irritation.

Revulsives are of value, and effectual in many cases, applied especially to the legs and spine. Bouchut, in his work on the ophthalmoscope, gives an interesting illustration of the prompt effects on the circulation of the retina in a case of rheumatic meningitis, by the application of Gounod's boot. They may be used when yet the diagnosis is obscure, and in the essential convulsion. In their use and in the use of the bath, and flannels wrung out of hot water, the same care must be taken in cases of protracted unconsciousness that is shown for the paralytic. Many a child has been badly scalded and burned in the hurry and anxiety of well meant efforts. The application of blisters is to be made with caution, and never until time has shown the persistence of inflammatory conditions. If used, the following rule has always directed me safely:—A small blister left on one or two hours, or at most three, and then with care, and lifted for examination each hour. Do not wait for the evidences of marked vesication. A very well marked redness, or the slight beginnings of vesication, suggest the removal of the blister, and the application of a poultice for a couple of hours, when vesication will be found to have occurred, or if not, the blister may be reapplied. Blisters recommended in infancy, without these precautions, are capable of doing great harm. *Vesicating collodion* may be applied to the scalp and the temples, and behind the ears, but never elsewhere in infancy. The bath suggests itself in cases where the temperature has fallen, and where there is preternatural heat; where irritations of the skin exist; where the exanthemata are anticipated; in the course of scarlatina. Profuse perspiration can be induced, if desirable, by Ronchetti's hot-air bath, or similar contrivances, where hot water and conveniences are scanty; slaked lime carefully used, so as not to burn the patient; hot bricks in hot wet flannels; a bag of steaming-hot boiled potatoes, in the bed; bottles of hot water; whatever, in short, may be most conveniently found at the moment. Other diaphoretics, and prominently the acetate of ammonia freshly prepared, are not to be forgotten. The application of cold to the head is a method most widely used, clearly indicated in the great majority of cases, but which should be carefully used to be effectual. Many a heavy wet rag or fold of linen are laid on the burning head, and left there, to serve as a poultice. Wetting the head with tepid water, or an evaporating lotion from time to time, would be vastly more conducive to the end. But when the sedative effects of cold are desired, they can only be brought about by ice, by constant changes of cold compresses, or by allowing the cold water to drip steadily and gently on the head. The india-rubber tubes, with finely perforated nozzles, that are used for douching the eyes, or any arrangement which will provide for the steady dripping of cold water on the elevated head, and from thence carefully carried away from the patient's body by the arrangement of india-rubber or oil-silk folds, will be effectual.

The employment of mild cathartics, enemata, and an emetic, if a hearty meal or indigestible food shall have been taken, is clearly indicated in a great majority of cases, and is little adapted to do harm.

The use of sedatives, antispasmodics, and anæsthetics, demands consideration. The latter are of special value in recurring convulsions of an essential character, and not to be inconsiderately used at once, without discrimination. Nothing can equal them in efficacy and rapidity of effect. The persistence of choroid congestions after the inhalation of chloroform, in cases observed by Bouchut with the ophthalmoscope, enforces the warning not to resort to their use as an initial routine treatment. Musk and assafœtida are valuable remedies, though the former is expensive, and both offensive. The persistence of the odor in the cadaver after a few drops of assafœtida have been given to the infant, has more than once surprised me at the autopsy. The internal use of chloroform awakens great expectations, and has been prominently brought forward in a recent number of this journal. Time and further experience are needed to show the full efficacy of the agent, and cases will soon accumulate. My own experience has not enabled me to do more than to entertain very favorable impressions of its employment. Its use as an addition to diarrhœa remedies has been made popular by Dr. Squibb and the endorsement of our excellent Board of Health. It is a valuable addition to a cough mixture; and its selection as a sedative in cases of essential infantile convulsions is prominently indicated, and it may be employed in the persistence of many of a symptomatic character. It may be given in milk, mucilage, or almond emulsion; care being taken in the latter cases to shake the bottle before administration.

The bromide of potassium has deservedly taken rank as a hypnotic. We believe that it induces sleep by processes akin to those which obtain in physiological sleep; that the congestion of the brain is diminished by its influence; and time has shown that full doses are readily borne. In congestions of the respiratory mucous membrane, and in false croup, it diminishes reflex irritability, while acting as a derivative. It is indicated in a large proportion of cases, with or without inflammatory symptoms, where the recurrence of convulsions is apprehended. Arterial sedatives may be combined in appropriate cases. Either aconite or the veratrum viride may coöperate or do the work alone. An elevated position of the head is not unimportant in cases where tendencies to syncope do not exist; and in these stimulants even may be necessary. But above all remedies, despite the special skill which time and experience will enable you to select with advancing precision, keep clearly in view that if you would prove yourself to be the man of your time, and hope for the respect of your brethren, your diagnosis must be based on the habit of careful, wearisome, bedside examination into every symptom, with the aid of all the appliances that exist in our art. Thus only may you hope for successes of which you have a right to be proud; and thus only can you calmly support the failures which no skill can avert. The diagnostician is not born, but made.

A LECTURE ON UNAVOIDABLE PUERPERAL HÆMORRHAGE,

OR PLACENTA PRÆVIA,

Delivered Jan. 1866, in the College of Physicians and Surgeons, New York.

By T. GAILLARD THOMAS, M.D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

When the impregnated ovum, after having made its way down the fallopian tubes, falls into the uterine cavity, it is covered over by a tufted membrane, called the chorion, which thus constitutes the shell of the fœtal ball. This, coming in contact with the thickened and congested uterine mucous membrane, adheres thereto, and increasing in size, becoming vascular, and taking upon itself the duty of aeration of the fœtal blood, receives the name of Placenta.

This organ may be attached either to the fundus or the sides of the uterus as low down as the os internum; the influences which cause it to select one or the other part being entirely unknown to us. Should it take its origin from the fundus or sides of the organ, the fœtus may be expelled at full term by the uterine efforts, without its being disturbed; but should it be attached over or near to the cervix, the necessary dilatation of that part which must occur before the body of the child can pass, is almost sure to detach a portion of it, and thus give rise to hæmorrhage. This unfortunate location of the placenta has received the name of "Placenta Prævia."

As was stated at our last meeting, the terms Placenta Prævia and Unavoidable Hæmorrhage are used synonymously; the former appellation signalizing the site of the badly placed organ, the latter the dangerous and almost inevitable complication which results therefrom.

By some authors these cases have been classed among mal-presentations under the name of "Presentation of the Placenta"—an arrangement which has been adopted in the work of Dr. Tyler Smith, which I have recommended to you as a text-book. This I think, is incorrect, for the term presentation is universally accepted as the "part of the fœtus first appearing at the os uteri in labor," and in no wise refers to any of its annexæ. Besides, we may have all of the evils of this condition when the placenta is so high up as to be out of reach, and some part of the child, having passed by it, occupies the os.

The literal signification of the term Placenta Prævia, and that which answers the best purpose practically, is that the placenta is placed, præ viam, before the way, and not, as it should be, in such a position as not to obstruct it. The synonymous term, Unavoidable Hæmorrhage, arose from the fact that even very old writers recognised the truth that such an attachment would necessarily result in that complication.

History.—Guillemeau (a pupil of Paré), Mauriceau, Paul Portal, Peu, De La Motte, Daventer, and many others, evidence such knowledge in their writings. All of them, however, with the exception of Portal, made a common error in supposing that the placenta was always originally attached to the upper part of the uterus, and had fallen from its place to the neighborhood of the cervix.

The acute perception of Portal did not allow him to fall into this mistake, and his views were subsequently adopted by Giffard and Poederer. But to Levret, who wrote in 1756, belongs the credit of giving a full interpretation of the condition. At a later period, Dr. Rigby, of Norwich, England, availing himself of the knowledge thus accumulated, pointed out some important distinctions between the varieties of parturient hæmorrhage, which have resulted in the improved and rational modes of treatment which will engage our attention to-day.

Exact Location of the Placenta.—To this part of our subject I feel anxious to direct your special attention, on account of its importance in a pathological point of view, and because I am forced to conclude that most of the obstetric writers whose works are made accessible to the American student, have promulgated views upon it which are erroneous. I do not imagine these writers to be at all ignorant of what I am about to tell you; but the point appears to have escaped attention, and the error of one has been reproduced by the other, until it has become as general as the following quotations will show:

"The cause of the hæmorrhage is evidently the separation of the placenta from the cervix uteri."—*Churchill Obst., Am. ed., p.* 437. "If the feet present with only a partial implantation of the placenta, or with it *coming to the margin of the os uteri only*."—*Ibid., p.* 438. "If the placenta be partially attached over the os uteri, it is generally upon the anterior lip, which is much thicker."—*Rigby Obst., Am. ed., p.* 346. "Under ordinary circumstances, this effusion of plastic lymph has already attained such a degree of firmness and coherence as to prevent the ovum from passing beyond the uterine extremity of the fallopian tube from which it has emerged; but in cases of placental presentation, it may be presumed that at this period the decidua was still in a semi-fluid state—had formed little or no attachment to the walls of the uterus, and had, therefore, no effect in preventing the ovum gravitating to the lower part, or even to the mouth of the uterus itself."—*Ibid., p.* 345. "The placenta may be attached over the whole of the os and cervix uteri, or it may be implanted over some part of the margin of the os, so as only partially to occupy the aperture. The causes of Placenta Prævia have not been determined. It is probably produced by the impregnation of the ovum after it has descended to the upper part of the cervix uteri—this being the last point at which the ovum retains its capability of impregnation and attachment to the uterine surface."—*Tyler Smith Obst., Am. ed., p.* 428. "We shall know the placenta by the fleshy, fibrous, and lobular sensation which it communicates to the finger, and by its being attached to the inner surface of the cervix uteri."—*Ramsbotham Obst., Am. ed., p.* 375. "I mean that case which depends on the situation of the placenta happening to be on the cervix and os uteri."—*Meigs Obst., p.* 429. "The attachment of the placenta to the mouth of the womb is one of the most dangerous complications to be met with in the practice of midwifery."—*Collins Obst., p.* 59.

These quotations are sufficient to convince you of the opinions of British and American writers, and the statement which I made above applies only to them—the French and Germans not partaking in their error. Now, I feel sure that in no case is the placenta ever attached to any part of the cervix or os uteri, that the walls of the cervical canal are always free, and that it is felt at the os externum only after having been detached from above. As I have not space for a full exposition of my reasons for such an opinion, I will give, in as short a space as possible, the chief grounds upon which it is based.

It was formerly believed that as the uterus developed above, the cervix gradually disappeared by being spread out, until its canal was merged into the uterine cavity, and the whole became almost globular in shape. In 1826, Prof. Stolz, of Strasburg, pointed out the fact that

the cervix does not thus spread out and disappear, but that it does so by an entirely different process, altogether independent of that of the uterus.

The view advanced by Stolz is, that as the cavity of the body of the uterus enlarged above, so does that of the cervix below; but that this cervical expansion begins at the os externum uteri, and extends up to the os internum. Thus, at the third month, the upper part of the cervical canal is entirely closed, but at its lower portion a slight dilatation has begun which will admit the pulp of the index-finger. This goes on extending upwards towards the os internum, until at or about the end of the ninth month the entire canal is so open as to admit the finger its whole length. Then the painless uterine contractions which come on at that time cause the dilated canal to spread out, the os internum disappears, the child's head descends to the os externum, and all is prepared for the parturient effort which is soon to occur.

Examinations of pregnant women by the touch convinced me of the truth of Stolz's opinion, and the falsity of the old view that the cervix gradually disappears from above. Examination of pregnant women post-mortem, in time convinced me that even Stolz was not wholly right. In 1860, I presented before the Pathological Society of this city, the uterus of a woman seven months pregnant, with these remarks: "When I first examined the cervix I was inclined to believe that it went to prove Stolz's theory to be the correct one; but subsequently, making a more thorough investigation, I was forced to the conclusion that by this specimen neither theory was sustained; for the index-finger could not be introduced at all into the os externum, and it was impossible to touch the fœtus, notwithstanding a considerable amount of force was employed. The os internum was perfectly distinct, and the cervix had not disappeared at all, but was somewhat increased in length, and a trifle wider at its upper than lower portion."—(*N. Y. Medical Journal, March*, 1860.) What I observed in this case, I afterwards found equally marked in three other cases.

But I was not alone in observing this. Prof. Isaac E. Taylor, of the Bellevue Medical College, examined twelve cases, which, in 1865, he made the basis of an able and conclusive essay substantiating the fact beyond a doubt.

Now, if this be true, and I am fully convinced that it is, it is evident that such a thing as attachment of the placenta to the walls of the cervical canal is utterly impossible. That the part of the placenta which is found at the border, and sometimes even beyond the border of the os, has been separated, has slid down into this position, and is not attached there, is evidenced by the fact that the finger of the obstetrician will, when examining, always detect a separation for a certain distance from the os externum. Examine Hunter's twelfth plate, showing placenta prævia, and you will see in his description of it that he is particular to mention the detachment of the placental mass over the cervical surface, although he believes that it was formerly there attached, and that its separation was the result of dilatation of the parts.

This, in great part, accounts for the view of the older writers, that the entire organ had fallen from its attachment at the fundus. All that part of the placenta which they touched was detached, and they supposed it to be the same with the whole. How else could such men as Guilemeau, Mauriceau, and others, have been led into the errors which they adopted?

The cervical attachment of the placenta, then, I believe to be imaginary, and regard that organ as attached under these circumstances to the segment of the uterine body just above the cervix, and perhaps entirely covering the os internum.

Varieties.—If the placenta be attached to any part of the lower segment of the uterus, the case is one of placenta prævia. It is, however, evident that the extent of the dangerous attachment must vary in different cases; thus, in one, only the edge of the organ may encroach on the forbidden ground; in another, the whole of one side of the segment may be covered; while, in a third, the whole circumference of the segment just above the cervix, that is just upon a level with the os internum uteri, may give attachment to it, and thus hanging like a veil across the uterine canal, entirely seal it up. The two first of these cases are styled partial, and the latter complete, placenta prævia.

Frequency.—There is no class of cases in the whole range of abnormal labors which causes in the mind of the obstetric practitioner the same apprehension and anxiety, I may almost say dread, as this; for so environed are they by dangers for both mother and child, so entirely unavoidable are those dangers, even under the best management, that the attendant, so far from being hopeful of gaining credit or experiencing satisfaction from their results, is generally happy to compromise with the rescue of only one life, and thus feel secure from complete discomfiture.

I would not be understood as stating that all hope of conducting such labors safely for both mother and child is to be discarded; but I wish you thus early to appreciate their extreme gravity and consequent importance, a conviction of which will surely come when you examine the statistics which tell of the mortality which attends them. Such being their nature, it is most fortunate that they are of rare occurrence.

In 16,414 deliveries, Dr. Collins, of the Dublin Lying-in Hospital, met with only eleven cases; which would give us a proportion of about one in 1,500. According to others, however, it is supposed to occur as often as one in 500, which is just about half as frequent as face presentation, prolapse of the funis, and transverse presentation.

Mortality.—As the statements of authors differ with reference to the frequency of the occurrence, so do they as to the mortality of this complication. Perhaps the most reliable statistics at our command are those of Dr. Simpson, of Edinburgh, who, from a table composed of 399 cases, concludes that one in every three of the mothers has perished, which gives a mortality equal to, if not greater, than that of cholera or yellow fever, in their most malignant forms. Of the children, over one-half, indeed about two-thirds, are supposed to be lost.

I am most happy to tell you that these are the statistics of a bygone age, and that the efforts of modern obstetricians have assuredly given us means which will hereafter alter them most markedly for the better.

Reasons for the Fatality of Placenta Prævia.—There must be, of course, some good reason why, in spite of all the resources at the command of our predecessors, so terrible a mortality should still have been recorded. It is this, that the very process by which nature accomplishes the delivery, destroys both mother and child; or, to make it clear by successive propositions:

1. *The child must sooner or later be expelled.*
2. *For this to occur, the cervix and lower segment of the uterus must dilate*
3. *Should they do so the placenta will be detached, and hæmorrhage occur.*

As each succeeding uterine contraction dilates the cervical canal little by little, so does each tear off the constricting placenta portion after portion; and as each detachment weakens the woman and injures the powers

of the placenta, so does each increase the dangers for mother and child, until after a period varying according to circumstances, the fœtal heart ceases to beat, and the exhausted mother sinks into a profound collapse. Her death is, of course, under these circumstances, due to loss of blood; but even should she by the assistance of art overcome this danger, others no less imminent await her. When the placenta has a præ-cervical attachment, the blood-vessels of this part of the uterus are immensely developed, and these being bathed by the lochial discharge which follows delivery, are very apt to take on the diseased action known as phlebitic inflammation, a condition which you know is most perilous to life. But again, when art comes to the relief of nature, she generally does so by the operation of version, which often results in rupture of the cervical structure, and thus is very liable to give rise to post-partum hæmorrhage, or to inflammation of the surrounding tissues.

Lastly, even if the performance of the operation of version should ward off death by hæmorrhage, and should in itself result in no laceration of the cervix, it may destroy life by the shock which it produces.

You perceive then, that the sources of death to the mother are numerous and palpable To give them at a glance, they are:

1. Exhaustion from hæmorrhage.
2. Uterine phlebitis or septicæmia.
3. The occurrence of post-partum hæmorrhage.
4. Exhaustion from the shock of version.

There is only one source of danger to the child, but this is prolific in results. It may die from asphyxia, the placenta being incapacitated to perform the function of aeration of its blood. The sanguineous system of the child does not furnish any of the material for the hæmorrhage, as is sometimes thoughtlessly supposed; its vessels are shut off from those of the mother, and are unbroken; but those of the mother which should bathe them and aerate the blood which they contain are ruptured, and the entire respiratory function of the placenta is impaired in consequence.

How much of a loss either mother or child will sustain, of course cannot be estimated, for a flow which would speedily affect and perhaps destroy a weak individual of either class, would not seriously inconvenience one of more robust constitution. When, however, a severe loss of blood has occurred from the placenta before delivery, always make a guarded prognosis as to the safety of the child, for children often die from a surprisingly small amount of hæmorrhage.

When the woman dies from hæmorrhage it is generally from repeatedly recurring gushes, consequent upon successive placental discs being detached; but this is not always so, for sometimes a terrible and unexpected flow occurs which destroys life almost instantaneously, and this, too, from a detachment of a very small portion of the placenta. Thus Dr. Hamilton relates a case of death from hæmorrhage where less than one square inch of placenta was found by post-mortem examination to be detached. In these cases probably some large vessel, perhaps the circular sinus of Meickel and Jacquemin, which passes around the circumference of the organ, has been opened into or broken across.

Symptoms.—The symptoms by which this unfortunate state of things will show itself are these: During the last months of pregnancy the physician will be sent for very hurriedly by his patient, who will inform him that she has, without any assignable cause, such as a blow, fall, or effort, had a discharge of blood. Without much trouble this will be controlled, or has ceased before his arrival, and he leaves her. In eight or ten days this is repeated; perhaps during sleep or while sitting quietly, and thus it continues at varying intervals to recur until the period of parturition.

In other cases no flow occurs until this time, and then it is observed to take place with each uterine contraction, and to cease almost entirely as it passes off. The flow which occurs before labor is due to development of the inferior portion of the uterus, which in the last months develops more rapidly than the placenta, while that occurring during labor is produced by active dilatation of the cervical canal. In a case thus complicated a diagnosis must be made by the touch, and for this purpose let the entire hand be passed into the vagina, and the finger into the cervical canal, if the introduction of the finger alone into the vagina is not sufficient, which will often be the case when the placental attachment is high up.

The means of differentiating unavoidable from accidental hæmorrhage were so fully given at our last meeting, that I will not further refer to them here, than to state that the three main diagnostic signs are: the occurrence of hæmorrhage before labor; its existence during and absence after a pain; and the discovery of the placenta by the touch.

(To be continued.)

Bureau of Medicine and Surgery, U. S. Navy.—From Secretary Wells's Report, December 3d, we extract the following:—The chief of the Bureau of Medicine and Surgery calls attention to the necessity for increased hospital accommodations at the Naval Academy, Annapolis, and suggests that a sufficient sum be appropriated to purchase a proper site, and to erect a hospital commensurate with the necessities of the institution. He represents the hospital now in use as wholly insufficient for the present number connected with the academy. He also urges an appropriation of $150,000 additional to the amount already appropriated to build a hospital at Mare Island, to answer the growing necessities of that distant station. He represents that the building in which the naval laboratory is carried on is small, and so inconvenient as to seriously embarrass its operations; that the machinery, apparatus, manufacturing department, store-rooms, packing and dispensing rooms, are all crowded in one small building. He submits an estimate of $80,000 for additional laboratory accommodations. Interesting tables connected with the casualties of the navy during the rebellion, and showing its sanitary condition, are given. The number of persons wounded during this period was 4,030; of which 3,266 were from gunpowder, 456 were scalded in battle, and 308 drowned in battle. The casualties incident to service in the navy, not connected with battle, during the same time, were 2,070. The aggregate number of deaths in the navy from casualties of all kinds during the rebellion was 2,272, as follows: from gunshot fractures, 495; from gunshot flesh wounds, 1,309; from incidental casualties, 373; died in rebel prison-pens, 95.

Estimation of Female Nurses by Soldiers in Hospital.—The London *Times* records the arrival of Miss Shaw Stewart, and eight other lady nurses, at Woolwich, from Netley, and says that the inmates of the military hospitals prefer the attendance of the male nurses of the Army Hospital Corps. Of the three hundred patients now in the Herbert Hospital, nineteen out of twenty have expressed their dislike at having the attendance of these lady nurses thrust upon them, contrary to their desire.

Reports of Hospitals.

JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

Clinics of Professor Gross.

TRAUMATIC TETANUS—RECOVERY.

November 21st, 1866—William Hill, æt. 21, a patient of Dr. McA——y, with whom Professor Gross saw him in consultation six weeks ago. Some two weeks previously the patient had had the misfortune to break the bones of the little finger by getting it jammed between the tongue of a fire-engine and the wall of a house, mashing the finger. An attempt was made at conservative surgery. At the expiration of about a fortnight, symptoms of tetanus supervened, manifesting itself in an inability to open the lower jaw. When Professor Gross first saw the patient, several days after the supervention of these tetanic symptoms, he found him with a wedge between his teeth, which had been inserted to prevent injury to the tongue, and to permit the administration of such food and medicine as were ordered; the head was drawn back; the patient was an object of great suffering as well as commiseration; he could not lie down in his bed, but was obliged to sit up at night, and he did not go to bed for two weeks; as soon as his head touched the pillow, no matter whether arranged high or low, that moment he was thrown into violent spasms; there was morbid sensibility along the whole length of the spine; in short, all the symptoms of lock-jaw were well marked.

Professor Gross visited this patient for upwards of a fortnight, at first daily, then every other day, and latterly twice a week. Finding that the finger mashed in the manner mentioned above, was a source of great suffering, the hand being much swollen and exceedingly sensitive, the finger was removed at the second visit, much to the patient's relief. The whole limb was then enveloped in a strong solution of acetate of lead and opium, under the use of which, and the constitutional means to be presently described, the inflammation subsided rapidly, the swelling and pain disappeared, and the limb became comparatively comfortable.

Internally large quantities of anodynes were administered, half a grain of morphia, three or four times in the twenty-four hours. In addition to this treatment, the patient was put on the use of quinine with tincture of the chloride of iron; with nutritious concentrated food—beef essence, rich animal broths, and an abundance of milk punch, which he took as freely as his stomach would admit of, and thus his system was maintained until gradually the tetanic symptoms subsided and ultimately disappeared entirely. He is now in all respects perfectly well from his attack of tetanus, from any symptoms of which he has been entirely free for eighteen days. His appetite is good, he is improving in flesh, and sleeps well.

Clinical Remarks.—This case is an interesting one, for cases of traumatic tetanus are usually fatal within a period ranging from a few days to several weeks, according to the exigencies of the case.

Many years ago, Professor Gross was called in consultation to see a case, where a man in going along the road with a four-horse team, injured one of his fingers, which was accidentally mashed under the wheel. Symptoms of tetanus supervened, and some time after the disease had taken this turn, Dr. G—— first saw the patient. Seeing that the hand was very much swollen, that the finger had been severely mashed, and that it was a source of irritation, he proposed amputation, which was performed. Constitutional and local treatment similar to that pursued in the present instance was instituted, and although the symptoms lasted about a week longer, the man recovered entirely.

Another case occurred in a little child living a few miles back of Louisville, Ky. A child, in falling over a fence, had received a punctured wound from the entrance of a splinter into the face over the malar bone. Symptoms of tetanus supervened, and had been in progress several weeks, when Professor Gross was called in consultation. He discovered the presence of a foreign substance in the parts, made an incision, and extricated a splinter of wood. The symptoms gradually subsided, and the child made an excellent recovery.

These three cases are the only ones which have recovered in Professor Gross's practice as far as he can remember at the moment.

On the evening of the 17th of the present month, four days ago, Dr. Gross was called in to see a young man who six days and a half previously had injured the middle finger of his right hand with a meat-hook. He was reaching up at the moment, standing upon a chair, the chair gave way under him and his hand caught upon the hook, stripping the skin extensively from the phalanges of the middle finger. This was on Sunday morning. On Thursday symptoms of tetanus supervened, soon after which the finger was taken off at the metacarpal-phalangeal articulation.

On Saturday evening, Dr. G. found him exceedingly pale, pulse very soft, irregular, and very frequent; the jaws were firmly locked, so that it was impossible to open them even to a space sufficient to introduce the blade of an ordinary case-knife, the head was retracted, and the patient had had several severe spasms. A course of treatment was agreed upon, and an appointment was made to see the patient again the next day, but he died at eight o'clock the next morning, three days after the supervention of the tetanic symptoms.

CASE OF CLEFT PALATE—REMARKS ON STAPHYLORAPHY.

Nov. 24.—Abby M——n, æt. nine, has a congenital deformity of the palate similar to that of hare-lip, with which it is sometimes associated. It is an affection of the same character as epispadias, eretrophy of the bladder, bifid spine, etc.

In the present case, the cleft involves the hard palate as well as the soft palate and uvula.

Clinical Remarks.—There is an operation for the relief of this deformity, performed on the same principle as for the correction of hare-lip. It consists in paring the edges of the fissure from one extremity to the other, and approximating them by means of the interrupted suture, employing for the purpose either silver or iron wire, or ordinary silk, according to the whim or caprice of the surgeon. Usually four sutures are necessary, one extending through the uvula, another a short distance above, and two further on, one at the superior extremity of the cleft. It is sometimes difficult to approximate the upper portion of the fissure, from insufficiency of substance, when we dissect up the mucous membrane from the hard palate, turning it over towards the middle line, and then bring it in by suture.

The original operation of staphyloraphy was performed by Professor Roux, of Paris, fifty years ago. Afterwards, it was extensively performed by Dieffenbach, of Berlin, and also by the late Dr. Warren, of Boston, and Dr. Stevens, of New York. It was performed in this country soon after the attempts of Roux, and has since become generalized over the entire civilized world, and is now performed everywhere as one of the acknowledged operations of surgery.

This operation cannot be performed with any pros-

pect of success until the patient is old enough to co-operate with the surgeon; and therefore we usually wait until the child is twelve or fourteen years of age. Before any operation is attempted, location of the parts should be established by manipulation by the introduction of the finger, the handle of a tooth-brush, the end of a spoon, or any article of that kind, which is to be brought in contact with the arches of the palate, the uvula, and tonsils, so as to enable the parts to bear the requisite degree of manipulation at the time of the operation. This should be practised frequently, for a fortnight or three weeks before the operation is attempted.

In performing the operation, the head of the patient is supported against the breast of an assistant. The surgeon then pares one edge, and the other immediately afterwards, by means of appropriate instruments, seizing the uvula with a pair of forceps, and with a knife constructed on the principle of the cataract knife, sharp-pointed and spear-shaped, if desired, the edges are removed either from above downwards, or from below upwards, as is most convenient. This is usually the work of a few seconds. There is some hæmorrhage, and after paring the fissure the parts should be sponged with a mop wrung out of cold water and carefully applied; the mouth must be held wide open, so as to expose the parts to the air, which is itself an excellent hæmostatic.

After the bleeding is over, we introduce the sutures one after another, usually beginning below. The threads are introduced by means of proper apparatus, and afterwards tied in the ordinary surgical knot, or are preferably secured by means of small shot passed over them and compressed, and the extremities are afterwards cut off close to the lead.

The sutures should be retained not less than five or six days, or until there is reason to believe that consolidation has gone sufficiently far to justify removal. Premature removal will result in a separation of the edges.

DIVERGENT STRABISMUS—DIVISION OF TENDON OF EXTERNAL RECTUS—RESULT GOOD.

Nov. 24, 1866.—Emma H——l, æt. 22. The right eye is turned out, owing to a contraction of the external straight muscle. The affection is congenital. The patient does not use the affected eye as much as the sound one. The convergent form of strabismus in which the eye is turned inwards, is that form of affection most frequently met with, and is easy of relief by dividing the internal straight muscle or its tendon immediately in front of the muscular substance. But cases of divergent strabismus are often exceedingly unsatisfactory, and the patient must always be informed that there is a risk to run as to the success of the operation, for we cannot be certain beforehand that the eye can be straightened. The operation for the relief of the deformity consists in dividing the external straight muscle. Pinching up a little fold of the conjunctiva an incision is made horizontally, not perpendicularly, as in the operation as usually performed, through the conjunctiva along the upper edge of the muscle, about half or one-third of an inch in length; the extremity of the muscle is then to be picked up on an elevator, director, or hook, and the tendon divided, performing a sort of subcutaneous operation. The edges of the wound in the conjunctiva are to be brought together by means of a very delicate suture, so as to promote union by the first intention. Performed as described; the eye became straight; and after the operation, the patient was directed to remain in a dark room and keep cold or cool water applied to the part.

ECTROPION OF UPPER AND LOWER LIDS—OPERATION.

John Y——r, æt. 27, had his face horribly burned in an explosion of powder at the Jackson cartridge factory. A year ago, he was operated upon by Professor Gross, at the clinic, for ectropion of both lids of the right eye, and the result has been satisfactory in the highest degree, and he now presented himself for correction of the deformity of the left side. The upper lid is firmly united to the eyebrow, and the lower lid is also diverted, but in less degree. A V-shaped piece was taken from the lower lid; the upper was dissected down from the eyebrow, and then a compress applied over it to keep the raw surfaces asunder until the parts heal by granulation.

Ectropion is not only unseemly, but interferes with vision and keeps the eyes and lids in a constant state of irritation from accumulation of dust, and constant exposure to the light. The everted upper lid in the present case presented a very marked example of granular conjunctivitis.

TRILOBATE LOBULE OF EAR in a young lady, æt. 20. The edges were pared with the scissors, producing four raw surfaces. The parts were brought into apposition by a single pin and the twisted sutures applied elliptically. This was on the 21st; on the 24th, the parts had united thoroughly and the pin was removed, the thread being allowed to remain longer.

Progress of Medical Science.

TESTS FOR ACIDS.—An exceedingly sensitive test for ascertaining the presence of acids has been suggested by Schonbein; this is simple cyanine blue, easily produced by the action of iodide of amyl on lepidine subsequently treated with soda. One part of the cyanine dissolved in 100 parts of alcohol is further diluted with twice its volume of water. The merest trace of an acid is promptly shown. Distilled water simply blown upon shows by this test the presence of carbonic acid from the lungs. The solubility of oxide of lead, which is so slight as to be unrecognised by sulphuretted hydrogen, is clearly discovered by this test. By carefully adding acid to the solution till the blue color is destroyed, a very delicate test for the presence of bases may be procured.—*Sci. Amer.*

BLEEDING AT THE NAVEL.—Dr. Zober, in the *Monat f. Schr. Geburtsch*, xxvi., as quoted by the *Southern Journal of the Medical Sciences*, who distinguishes bleeding of the navel proper from bleeding due to an improper tying of the cord, or to the existence of a fungous exuberant growth, bases an opinion upon the fact that as icterus is usually present nutrition is partly deficient, and that the bile itself plays a part in the destruction of the coagulability of the blood. Autopsies develop the existence of coagula in the umbilical vessels, or an aneurismatic condition of them. Martin found once an unusually large umbilical artery, with an origin from the arteria sacralis media. The blood, which flows uniformly, never in a ray, and is perfectly clear, may ooze out of a swelling or without a visible opening out of the navel. The duration of the hæmorrhage is various. Besides the symptoms of anæmia we may have concurrent with them, or at a later period, eczema, and petechiæ on the skin; or bleeding from the intestines, which may produce death just as purpura after the bleeding has ceased. Treatment in these cases is very uncertain. Compression, styptics, and the actual cautery, are alike unreliable. Th. Hill once succeeded by pour-

ing a layer of plaster of Paris over the navel. Dr. J. H. Pooley, of Yonkers, N. Y. (the *American Journal of Medical Sciences*), failed with the ligature *en masse*. He passed two stout steel pins at nearly right angles to each other through the integument and under the navel, and then applied a waxed silk figure-8 ligature, with no other result than an apparent checking of the bleeding for a couple of hours. This child was also very much jaundiced with urine highly charged with bile elements. No *post-mortem* examination allowed.

Treatment of Fractured Patella by the Padded Ring Method.—Dr. W. A. Gibson, of St. Louis, Mo., in a contribution to the *Medical and Surgical Journal* of that city, relates his successful treatment of a transverse fracture of the left patella, in which there was a separation of the fragments to the distance of about an inch. He measured the sound patella and had a ring made of iron (allowing for padding), which was well guarded with cotton wadding cut in strips and wrapped round the ring, over which a bandage was applied. To each side of the ring he sewed strips of bandage. He then placed a well padded splint twenty-four inches long to the posterior aspect of the leg and thigh, which he secured by a few turns of bandage at the lower and upper ends, the bandage being loose so as not to interfere with the circulation. He kept the fragments in apposition and the ring in place by strips of bandage over the splint. At the end of thirty days, when the ring was removed, the union was *bony* and *complete*. The appliance gave no pain, and six weeks after the injury the patient was having a very good use of the limb.

A New and Simple Bullet Probe.—Dr. Vincent Gelisch, of Los Angeles, Cal., in the *Pacific Medical and Surgical Journal*, calls the attention of the profession to the effectiveness of white pine wood as a substitute for the famous Nelaton probe. A pine probe-shaped splinter, when introduced into a wound, and rubbed against the suspected object and quickly withdrawn, will present traces of lead equally as well as unglazed porcelain.

Action of the Bromide of Potassium upon the Nervous System.—The actions of the bromide of potassium, according to Dr. J. Crichton Browne, in the *Am. Journal of the Medical Sciences*, are—(1.) It mitigates those convulsive movements or spasmodic twitchings, which are the result of the rapid conversion of sensory impressions into motor impulses, or of morbid reflex action through the medulla oblongata, and it exercises a peculiar influence over the phenomena which are characteristic of epilepsy. Whether the increased excitability of the medulla oblongata is so great as to be productive of epilepsy, or so slight as to extend itself in minor spasmodic complaints, the bromide seems to exert an excellent effect on it. (2.) It has a sedative effect upon the action of the heart in certain cases. (3.) It lessens and mitigates that rapid and preternatural excitement of spasm, tremor, and other outward manifestations, which in some forms of nervous disease follow upon any emotional or moral disturbance. (4.) It acts as an anodyne, under certain circumstances relieving hyperæsthetical sensations. (5.) It promotes sleep. (6.) It exercises a sedative influence over the sexual functions. (7.) It exercises a beneficial influence over certain mental diseases.

Hyposulphite of Soda in Malarial Fevers.—Dr. W. H. Baxter, of Moscow, Iowa, writes to Prof. N. S. Davis, that he was induced, by Dr. Leavitt's statement in No. 1 of this journal for April last as to the efficacy of the hyposulphite of soda in malarial fever, to employ that article. In the last month, Dr. B. says he has treated "over one hundred cases of intermittent and remittent fever with this remedy alone, and in no case has there been an exacerbation after taking the remedy a reasonable length of time." He gave it in fifteen grain doses in solution in water. He has not trusted to this remedy alone in pernicious or malignant types.—*Am. Journal of Med. Sciences.*

Vaccination.—Dr. Huet Desprès, in the *Union Médicale*, who lays great stress on the limpidity of the lymph in preference to the degree of development attained by the pustule, concludes that the lymph should be gathered towards the seventh or eighth day, before it becomes turbid by the admixture of pus. He also maintains that as the fluid may continually be secreted and retain its properties of virus, long after the suppurative stage, by virtue of a regenerating process, the scab may be removed and the vaccine ulcer cleansed with tepid water. The serous-looking matter which follows the cleansing, he proved by experiment, was capable of producing the characteristic infection.

Sulphate of Zinc vs. Iodine in Injections for Hydrocele.—Mr. Haynes Winslow, of St. Mary's Hospital, Dublin, clings to the rather old-fashioned remedy of sulphate of zinc. of the strength of three grains to the ounce, as an injection for the radical cure of hydrocele. The zinc injection excites more vascular action than the iodine and gives more pain, but the greater assurance of success is more than a set-off in favor of the zinc. He directs that "after the hydrocele fluid is withdrawn the injection should be thrown in with a syringe through a trocar, and kept in the tunica vaginalis till there is pain in the loins and groins, which usually comes on in four or five minutes. Then the fluid ought to be let out."

The Blindness and Deafness of Smokers and Drinkers.—M. Sichel, in the course of twenty-eight years' practice, has frequently met with blindness from paralysis of the optic nerve, produced by the abuse of smoking, and he believes that there are few persons who can smoke for any long period more than five drachms of tobacco daily without their vision, and often their memory, becoming affected. He had previously spoken of another form of amaurosis, symptomatic of *delirium tremens*, and caused by alcoholic drinks. It is frequently accompanied by trembling of the hands in the morning, and at a later period by morning vomiting. Both of these varieties are very slow in their progress towards cure, and very refractory to treatment. This latter occupies a long time, and an essential point, of course, is the discontinuance of the practice that has given rise to the blindness. Triguet states that in smokers and drinkers an insidious and obstinate form of otitis frequently becomes developed. There is a kind of numbness or torpor of the ear, with a sense of cold, but hardly any pain. There is no wax in the ear, but extreme dryness and minute granulations in the throat, the passages of the nose, and the tubes on each side, leading from the mouth, behind the palate, to the middle of the ear. Noises in the ear almost always occur at an early period, and it is important to notice that they have a hissing sound. The disease exhibits itself in three periods:—1. That of excitement, in which there is intolerance of noise and a hissing sound in the ear. 2. That of depression, in which the hissing sound disappears or only remains as a distant and feeble echo. 3. That of a paralytic condition of the auditory nerve, in which the sense of hearing is more or less completely, and often permanently, lost. In this period there is also often trembling of the tongue, embarrassment of speech, and disturbance of vision. The prognosis is very unfavorable, and dependent upon an abandonment of the habit.

The Cause of Dental Caries.—A contributor to the *London Lancet* contends that the great increase of dental caries among the rising generation is due to the adulterated bread, combined with the want of good air and pure water in all large towns. Dr. Pidduck, in a previous impression of that journal, substantially remarks that the flour, being too finely sifted, loses all its bone-making qualities, while large quantities of alum, which acts as an enamel solvent, are also used to make the bread whiter. "And then comes London water. This we should not use unless boiled and filtered, for fear of drinking sewage; and by thus boiling and filtering it, we take from it many earthy constituents which would be useful in building up our children's frames."

The Hyposulphites in Diphtheria.—The *Dublin Quarterly Journal of Medical Science* publishes a short paper read before the Medical Society of the College of Ireland by Dr. Hayden, in which he gives the results of treatment of eight cases of diphtheria. In seven cases the hyposulphite was the main remedial agent used; these cases recovered. Death occurred only in the one instance where the hyposulphite was not given, the patient being seventy years of age, and the case being complicated with congestion of the lungs. Some of the seven cases which recovered were of the milder form, but at least three were sufficiently serious to warrant an unfavorable prognosis.

Dr. H. does not assert that in the hyposulphites we have got an agent capable of neutralizing or decomposing the toxæmic principle of diphtheria, but thinks that, of their curative properties in this disease, there is sufficient evidence to warrant a more extended trial.—*Medical & Surgical Reporter.*

Bromide of Potassium in Sleeplessness consequent upon Uterine Irritation.—It is better always to try this agent before resorting to narcotics in the wakefulness which is often associated with diseases of the uterus or its appendages. Indeed, in some instances it will succeed in inducing rest where the others fail, and besides, the liability of these to disturb the digestive organs is sometimes a serious objection to their administration. Without detailing cases, I would simply state that I have recently found remarkable benefit in the condition mentioned, from the bromide of potassium—the dose should hardly be less than ten grains, and may be twenty or more.—*Chicago Medical Journal.*

A New Caustic.—Dr. Pinckney W. Ellsworth, of Hartford, Conn. (*Medical & Surgical Reporter*), alludes to the discovery by a Mr. Augustus Barnes, of the fact that the solar focus is a most efficient and admirable caustic.

Dr E. states that he "saw one gentleman who had a nævus on his face, extending from the eye to below the mouth and involving the lower eyelid to the very edge, and covering four or five square inches of surface; it was of a deep cherry-red color, approaching purple, and covered with knobs of condensed tissue, an eighth of an inch high. This nævus could be seen as far off as the color of the face. After two applications the spot has nearly disappeared, the skin generally having the hue of a surface blistered some days previously, and it is now nearly well. Some portions were absolutely like normal skin, and entirely colorless. Every knob was gone, and where stood one of the largest, and where the rays were longest condensed, was a perfectly healthy looking cutis. * * * * This man can be considered practically cured, although there is at present the appearance stated, but which does not especially draw attention. * * * * The rays were condensed with excellent success, even on the very edge of the lid. * * * * Nor is the pain as severe as we might apprehend, as it is confined at each instant to a very minute point. * * * * Patients at any rate submit very readily and without the use of anæsthetics." Mr. Barnes uses a lens of two and three inches diameter, condensing the rays upon the object to be removed, and goes over the whole, if not more than three inches in surface, at one sitting. Lupus, Ichthyosis, and small tumors involving the surface of the skin, have been subjected to this experimentation with promising results, at least as far as we may infer from Dr. Ellsworth's communication to the journal above quoted.

Treatment of Subjective Sensations in the Ear, by Dr. A. Politzer, in Vienna.—The therapeutics of the subjective symptoms in diseases of the ear, which accompany the affections of the cavity of the tympanum, have, as is well known, the best results by means of the injection of air through the Eustachian catheter; still, these injections often have no effect. In some cases they even increase the trouble. In general, the removal of tinnitus aurium is more frequently accomplished where it is intermittent in character. In the cases where it is constant, the effect of the air-bath is exceedingly various, so that we can never say in advance if in a given case a favorable result will be obtained. At any rate, too protracted a treatment by the injection of air, or of medicated fluids, may act injuriously. It is best not to protract the treatment more than from three to five weeks, beginning again after quite a pause. Of the narcotics which have been used to remove the "noises in the ears," none have been found to have a certain effect. These have been used in the form of vapors (chloroform, ether) blown into the cavity of the tympanum, ointments of ol. hyoscyam., chloroform, tinct. belladonnæ, acet. morph., tinct. opii, rubbed in the region of the ear. Tinct. belladonnæ, tinct. myrrhæ, have been dropped into the external auditory canal. Sometimes dropping in of lukewarm water, or water and glycerine, have relieved severe tinnitus. There are yet no accurate accounts as to the effect of subcutaneous injections behind the ear. In some cases of Politzer's there was a transient effect. Vesicants seem to avail nothing, except in recent cases, with no evident objective changes. No effect has been seen from internal remedies. Quinine has some effect in intermittent attack of tinnitus, with, however, temporary decrease of hearing power. In cases occurring in patients with constitutional syphilis, iodide of potassium relieves the deafness and noise. B. Shulz has seen a favorable effect from the use of the galvanic current.—*Wien Med. Wochenschrift, Leipzig Zeitschrift für Medicine, etc.*

Cholera Statistics in the Empire of Austria, from July to the Middle of October, 1866.—Two hundred thousand persons in round numbers were attacked with the disease, of whom about 100,000 died. In the different Provinces of the Empire, the proportion is as follows: *Lower Austria, Vienna.*—Up to October 15th, attacked, 7,443; recovered, 2,493; died, 3,242; under treatment, 936. *Lowlands.*—Attacked, 21,595; recovered, 12,625; under treatment, 999. *Bohemia.*—Attacked, 37,597; recovered, 17,716; died, 17,570; under treatment, 2,311. *Moravia.*—Attacked, 67,192; recovered, 33,735; died, 27,624; under treatment, 5,826. *Silesia.*—Attacked, 2,835; recovered, 1,421; remaining, 351. *Hungary.*—Attacked, 48,845; recovered, 20,470; died, 21,556; remaining, 6,819. *Buckowina.*—Attacked, 8,582; recovered, 4,116; died, 4,305; remaining, 661, etc. The statistics are authentic, having been obtained for the Vienna *Medizinische Presse.*

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MEDICAL APPOINTMENTS.

It is truly surprising that the system, or rather the want of system, which obtains in the matter of medical appointments, in New York particularly, furnishes even comparatively good results. On the whole, the places in our hospitals and kindred institutions are filled with good men, some of whom are the very best in our ranks. This, however, is not the result of the manner in which they are chosen for these offices, but is rather to be accounted for by the general competency of the profession to practise our art. But it is no argument in favor of appointments which are not founded on real merit; no reason why the present reprehensible, abominable, and notoriously partisan spirit of making selections should longer prevail. The political primary elections of our city are not more unscrupulously engineered and manipulated for the benefit of the few inside the so-called Ring, than are the medical appointments in the gift of the directors, governors, and such like, of our hospitals and asylums.

Let us look for the present at the means which are adopted by the majority of applicants for obtaining the favor of the appointing power, viewing their manœuvres in their truly disgraceful aspect, and raising in the performance of our duties as journalists that veil of charity which has so often, in a spirit of mistaken kindness, been thrown over them.

As the case now stands, when a vacancy occurs, unless it be by the death of an incumbent, it is only whispered among a very select and favored few, who have been for a long time in a Micawber-like attitude about the institution. It is, however, for very obvious reasons, kept sedulously concealed from the great mass of the profession. At the proper time, the requisite pressure, social, political, and even religious, is brought to bear upon the laymen who are primarily the power in this matter, and the thing is done. Many a member of the profession, who would have been glad to enter the lists, and who would be perhaps better qualified for the place than the successful appointee, first learns that a vacancy has existed when the place is filled.

In some cases it is even openly avowed that such a place is for such a man, perhaps very worthy and perhaps not, and all applicants are warned off in advance. Indeed, to such an extent is this spirit of patronage and favoritism carried that the positions are spoken for, promised to, and claimed by applicants before any vacancy actually exists. We would ask, in view of such a state of things, what the chances are for fair competition!

With regard to the junior staff the thing is managed quite differently. Here the vacancies are duly announced, and competitive examinations are held which are creditable for their strictness and impartiality. The result is, that our young men go up to the examinations in crowds, and while no one disputes the justice of the appointments, the successful candidates have reason to be proud of their selection. The best men are consequently almost always obtained; and if they are not, the fault does not by any means lie with the system which is adopted to gain them. We would ask why the same general plan could not be adopted for the appointment of members of the attending staff? Why should we not have the vacancies occurring, or about to occur in this staff, openly and publicly announced? An invitation could then be given to every one who might feel himself qualified to come forward and present his credentials and claims. Then let their medical boards make a public report of the names of those they deem most fit, and ask the directors to select from such. Such a course would commend itself as eminently just to all parties, and would undoubtedly subserve the best interests of the institution. How much miserable wire-pulling and unprofessional urging of particular favorites would be done away with if the system were a fairly competitive one! Many, under such circumstances, would be ashamed to urge claims in public which they now industriously put forward in the dark.

But what would be even much better than this, if it were practicable, would be the adoption of the French "Concours" system. We cannot, however, even hope for this under our present plan, as it would involve changes which would be too radical even for the most enterprising American to contemplate. We may make some approach to the excellency of this system; but the time for even the faintest consummation of a hope for it is too far removed to avail us anything just now.

We have cause to be thankful that, in addition to our other prevailing evils, young men are not crowded out of positions in our hospitals and infirmaries, by those older men who have outlived their usefulness. Such, we are pleased to say, have the grace to resign. But the difference as regards qualifications is just as great among young men as among those that are older, and the pernicious system of indiscriminate appointments is not by any means remedied by the number of juniors that may be upon a staff.

There are other qualifications besides general competency to treat the sick, which should be required of

candidates, but, as may be expected, the present political system of appointment does not by any means insure their possession. It does not even ask for them. In the first place, an attending surgeon or physician should consider it his duty to teach students who may walk the hospitals. He does not need for this purpose to be an accomplished lecturer; all that can be required of him is to demonstrate the points of his cases, and impress upon the minds of his hearers such clinical facts as may be of interest and importance. By the establishment of a custom of clinical teaching that should be general, there would not be interference with the claims of any practitioner for the place, for any incumbent could perform his duties without being a college professor. We maintain that no one who holds any hospital appointment can deny the privilege of being instructed to those who may not be equally favored, or who may not enjoy equal advantages. It is due to the student and to the profession at large, that the results of experience should be willingly and freely given. If the attending physician or surgeon cannot spare the time from a lucrative private practice, regularly and punctually to perform such duties, he does a service to his patients, to his profession, and to the institution by a speedy resignation.

In the second place, in order to discharge such obligations, he should not have so many appointments that he cannot do justice to each one. We are sorry to see a greediness on the part of not a few to grasp after every vacancy that occurs, and not to be satisfied short of a position in every available hospital and infirmary. It is unreasonable to suppose that such can discharge their duties faithfully and well; and even if they could, we cannot see either the justice or good taste of acting in a selfish manner towards their other professional brethren; for by appropriating such places to themselves, they must necessarily crowd out others who would be only too willing and too glad to have a tithe of such opportunities. Monopoly here is as injurious as elsewhere, and should be deprecated in a manner not to be misunderstood.

Reviews.

On Provision for the Insane Poor of the State of New York, and the Adaptation of the "Asylum and Cottage Plan" to their Wants. By Charles A. Lee, M.D.

The readers of the Record will recognise in the author of the pamphlet, the title of which heads this notice, a familiar contributor to various departments of medical science and literature. It may be deemed a fortuitous circumstance that the writer has brought his judgment, ripened by great experience and extended facilities for observation, to bear upon a question of social science of so grave importance as the proper provision for the insane poor. By common assent the profession at large has been too willing to permit this problem to be deferred to the few whose positions bring them in intimate official relations with the insane. It is a matter of surprise that this should have been the case so long, when we consider the gravity of the question, and the great vital, professional, and economical interests at stake.

It will be seen, however, by a perusal of Dr. Lee's paper, which appears in the volume of the Transactions of the State Medical Society, that the suggestions it contains, if carried out, will lead to innovations and great changes in the present plan and organization of our asylums for the insane, which, in their results, will be as radical as those proposed by the great Pinel.

It has been a fair question for examination whether the operations of the law organizing the State Lunatic Asylum in 1843, and which may be deemed the embodiment of the policy of the State at that period in providing for its insane, have, at the expiration of twenty years, developed results so satisfactory as to forbid change or amendment. That law, with other provisions, authorized superintendents of the poor and county judges, in their discretion, to send paupers and indigent insane persons to a poor-house, or the State Asylum. It further authorized the superintendent of the asylum to return such patients as, in his opinion, are incurable, to the poor-house. Under these provisions of the law hundreds, yes thousands, of insane persons have been consigned to the poor-houses of this State by county officers on the one hand, and the superintendent of the asylum on the other, with the "stigma of incurability" resting upon them. Under the laws of 1843 the insane, supported at public expense, had a legal habitation in the poor-house or the State Asylum, as chance or favor located them. With the sanction of law, a soldier of Washington was found, on official examination, in one of our poor-houses; a venerable soldier of 1812, reduced in circumstances, but whose silver crown ought to have spared him the fate, was removed from the State Asylum to a poor-house; and, still later, a soldier of our late war, rendered insane by his service, was sent in a curable condition to a poor-house, where he languished and died. In the approving words of one of our neighboring State asylum superintendents, the insane were verily left "to take their chances." If we were to seek language to properly characterize our system, or to "behold ourselves as others see us," we should fail to find any more suitable than that used by Dr. Workman, of Toronto, in his last report. In discussing and urging the necessity of some comprehensive provision for the insane (in Canada), and in referring to the transfer of the chronic and incurable from asylums to poor-houses, as pursued in many States, as a part of the machinery by which asylums are rendered effective for the treatment of recent cases, he remarks: "After a definite period of treatment in a well-ordered asylum, all patients who do not recover are discharged, in order to make way for new cases. This measure is a wise one; but as it has not been associated with any provision for the subsequent care of those thus discharged, and they are thrown back on municipal charity, the result has been that, in a country eminent for its superior civilization, and distinguished for its advanced intellectual culture, an extent of human suffering and degradation, unparalleled perhaps in any other country calling itself *Christian*, has been found connected with the existence of these most unfortunate outcasts from human sympathy." * * * "Should this error be committed, we should, in a few years, find the condition of the incurable insane in Canada as disgraceful and as indicative of public barbarity as it has been shown to be in the State of New York."

The revelation of the report of the late Dr. Willard,

as well as other official inspections, fully warranted Dr. Workman in the expression of the opinions he has published. He deservedly denounced a system which properly cared for the insane during one stage of the disease in an asylum, and permitted them to be transferred to a poor-house during a more helpless stage, as a barbarism. "The great want," in the opinion of Dr. W., is "the institution of a comprehensive and humane system of providing for the chronic and incurable." The marked defects of our law were, first, that it was not made compulsory with county officers to send all the insane poor to the State Asylum; and, secondly, that the superintendent of the asylum, in his option, could return to the poor-house the incurable. We will not here inquire how these provisions of the law have slowly and surely built up the poor-house system to its present strength, or seek to dim the honors (?) of whoever may claim its paternity; but will point to one of its practical results, that, in a period of ten years just elapsed, the insane population of the county houses (exclusive of New York and Kings) has increased seventy-six per cent. In the light of such results and of our experience, we are warranted in asserting that the law contained provisions essentially wrong, and that it required a radical change and amendment.

The revelations of the report of Dr. Willard, his disinterested personal exertions, seconded by the official sanction of our present Executive, Governor Fenton, led to the laws creating the *Willard Asylum for the Insane.* This act was carefully considered. It was submitted to the Superintendent of the State Asylum, and to other individuals, who, by their position, were competent to advise, before its passage. It met their entire approval. It is designed for the reception of the chronic (not incurable) insane in indigent circumstances. It is designed to take the chronic insane from the poor-houses, where the laws of 1843 left them, and provide for them properly, economically, and professionally.

It is the purpose of Dr. Lee, in his paper, to present several plans proposed for the relief of this class, as well as certain principles and views which, in his opinion, should govern the construction and organization of this asylum.

These plans and modifications are intended to remedy some of the defects of existing arrangements for the care of the insane, which, as Dr. Lee says, are the abnormal and unnatural life in our lunatic hospitals; "a dull, unvaried routine, wholly opposed to the former habits of the patient, and calculated to exert an unfavorable influence both upon the body and the mind—all are subjected to this same unvaried rule, the same unyielding routine." Three classes of the insane are described, for which no means for proper classification exist. "Some require very little, if any, restraint and seclusion; they need moral treatment rather than physical; kind and soothing advice, congenial associates, quiet guardianship, gentle manners in their attendants." * * * "Then there is a class the very opposite of this. They are violent, noisy, suspicious, troublesome; perhaps querulous, censorious, and even dangerous at times; in conversation, often vulgar and indecent." * * * "But there is another and the largest class of all, composed for the most part of chronic cases; quiet, harmless, industrious persons, who need employment, guidance, and direction, under the charge of kind and intelligent overseers; labor, systematic, regulated, and of that kind best suited to their previous habits and occupations; labor, not compulsory in the strict sense of the word, but made so pleasant, inviting, and useful, as to draw the insane irresistibly towards it." The defective arrangements of our insane hospitals for the proper classification and care of the classes here described are appreciated by the larger proportion of their physicians. It is for the latter class, the most numerous as well as most neglected, that provision is required to be made; "a class very improperly designated as *incurable;* as experience has shown that recoveries are by no means infrequent among them. An ordinary hospital is not the best place for them; they need no barred doors, windows, and gates; no prison-like arrangements whatever. They need oversight, care, and mild control; but no expensive palaces; no herding together in vast halls and dormitories." * * * "What they need, chiefly and above all, is useful occupation, with as many of the comforts and pleasures, and associations of family and home, as it is possible to provide for them."

Dr. Lee notices several plans which have been suggested by our superintendents for improving the condition of the chronic insane. Dr. Hills, now in charge of the insane hospital of West Virginia, who personally examined the best institutions of the kind in Europe, in his report for 1864, recommends what he calls a "Farm Home for the Insane," or, in view of the village style of building, suggested "Hamlet Home for the Chronic Insane," for the reception of the insane in the poor-houses and jails, and those annually discharged from the State Asylum. The establishment is recommended to be located on a farm of 500 acres in extent; to consist of one building for each sex, accommodating 100 persons each; adding, annually, other buildings, which are to be clustered in village style. The first attention is to be given to the health, comfort, and happiness of these patients, and next to developing their industrial capacities with the combined object of health, happiness, and self-support. Dr. Hills avows the opinion that such an establishment may be made nearly self-supporting.

Dr. Butler, of Hartford, in his report for 1864, proposes to use the Retreat for the reception of curable cases, and to transfer the incurable to a large farm with plain buildings erected upon it, and to employ their labor in carrying on the establishment. He thinks their labor would prove remunerative, their condition much improved, and the treatment of curables carried on much better in hospitals if the incurables were removed.

Dr. Lee presents an analysis of the plan, ascribed to Dr. Gray, which appeared as an editorial in the *Journal of Insanity.* "The first requisite is additional hospital accommodation." Two hospitals for the treatment of acute paroxysmal, or violent cases should be built, one in the eastern and one in the western section." * * "Separate buildings, less expensive and of simpler construction than the hospital, and disconnected with it, should be provided for the quiet, the filthy dements, and paralytics." * * * "Upon the farm there should be cottages for the employees;" * * * "with these employees the orderly, industrious, chronic, or the convalescent acute patient might reside. * * * That some classes of the insane may be thus provided for, with advantage to themselves and at comparatively small outlay, has been fully demonstrated in asylums in England and on the continent."

In his last report, Dr. Bemis, of Worcester, argues that existing plans for asylums are defective, as they present to all, whatever may be the grade of disease, the same unvaried rule, the same unyielding routine. Dr. B. has exhibited "great moral courage in breaking over the barriers of routine, prescription, and combined opposition to any innovation on the present stereotyped arrangements of asylums." The plan embraces the following details: "There should be a central edifice—the hospital proper—in which would be placed all the

cases of acute mania, the violent and dangerous, the suicidal and troublesome—with all facilities for classification of patients and the treatment of insanity. There would be, on one hand, a few cottages, plain, neat, and convenient, for the quiet, harmless, and industrious of both sexes, with workshops, where they could follow such industrial pursuits as could be made available." * * * "On the other hand there would be the residences of others, who would devote their time to the cultivation of gardens, etc., etc." Dr. Bemis correctly remarks that unless these radical changes are brought about in his institution it will fail "to meet the growing demands of another generation."

Dr. Lee might, with propriety, have produced the plan of Dr. Workman, Dr. Walker, and others, as favoring a departure from the present hospital system. It would also have presented to the readers of his pamphlet the whole subject, if he had quoted the opinions of some of our superintendents who oppose all change and innovation, but insist that true progress lies in the direction of the present system.

The plans which we have detailed, embracing what Dr. Lee calls the "*Asylum and Cottage plan*," or, the *Hospital and Colony plan*, seem to have been suggested by the results of the "Hospital and Colony of Fitz James," Clermont, France, accounts of which were first published in detail in the *American Medical Times* (1862) by the writer of the pamphlet before us. He gives a minute account of its organization, and some of its results, which we must ask the reader to peruse at length in Dr. Lee's published article in the Transactions. The limits of this notice will not permit us to say more than that the establishment consists of a hospital structure and detached cottages, located upon a farm of 500 acres. The hospital is designed for those patients requiring immediate medical supervision. The various cottages are designed to receive the convalescents and such mild patients as can be permitted to enjoy the larger freedom this arrangement permits. A variety of occupations incident to a large establishment, are carried on. The facilities for the appropriate classification of all classes of patients are unequalled.

The average number of patients treated at Fitz James is 1200. The institution has been in operation fourteen years.

Dr. Lee considers, very properly, that the idea presented in the organization of this asylum solves the problem of the proper provision for our insane poor. Applied to our own State asylums, their arrangements would be somewhat modified. The asylum, or hospital building, would afford medical treatment and care for all cases requiring immediate medical inspection. The convalescents and chronic cases, instead of being transferred to the jails and poor-houses, would be colonized into properly constructed cottages on a farm adjoining the asylum or hospital edifice. This is practically the modification of our present system which Dr. Lee proposes. The cottages would form an agricultural colony. The colony and the hospital would be supplementary to each other. As patients of the quiet and chronic class would not be expected to spend all their time in amusements at billiards, cards, and ten-pins, so they would not be compelled to undergo manual labor for its results in money. As labor and industry is the normal habit of the large majority of patients admitted to our asylums, and as it is recommended by all asylum physicians, there can be no objection to allowing the avails of it to reduce the cost of support. Such an institution should always be under the direction of a physician of decided professional attainments, and actuated by the highest purposes of morality and benevolence.

In Dr. Lee's opinion, the number of patients in an institution of this kind should be restricted to 500. It would be better, in our opinion, to leave this to be determined by actual experience. While Dr. L. criticises the law creating the Willard Asylum, that it fails to meet all the wants of the insane, in that it makes provision only for chronic cases, and that it is intended to be the receptacle for this class of the entire State, he fails to notice two important provisions of the law, which enact that all cases of recent insanity SHALL be sent to an asylum; and that all chronic cases (not the incurable) may be transferred from the State Asylum to the Willard Asylum, but not returned to a poor-house.

It is not necessarily intended, as Dr. Lee would have the reader infer, that the chronic insane of the entire State are to be congregated together at the Willard Asylum. A discretionary power exists with the trustees and governor to designate the counties from which patients are to be received.

The design of the laws creating the Willard Asylum was to break up in the most direct, effectual, and expeditious manner the poor-house system of caring for the insane, and to enact such provisions as would secure to all cases of insanity proper care and treatment, whether in the acute or chronic stage of the disease. Hence it is reasonable to infer, that on the opening of the Willard Asylum the first admissions will be from the poor-houses—the first relief extended to those persons described in Dr. Willard's report, out of which this movement had its origin. It is to be hoped that the principles so ably presented in the paper of Dr. Lee—segregation, as opposed to congregation, together with the incorporation of an industrial organization—will be observed in the organization of this asylum.

We have desired to notice briefly in this article some of the leading features of Dr. Lee's pamphlet, and must commend the subject to the profession as one deserving their careful and candid examination.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, Nov. 21, 1866.

DR. JAMES ANDERSON, PRESIDENT, IN THE CHAIR.

STATE OF MEDICAL SCIENCE IN EUROPE.

DR. JAMES P. WHITE, of Buffalo, N. Y., lately returned from a tour, gave, by invitation, his impressions of the state of medical science in Europe.

"Fifteen years ago," he said, "Paris was pre-eminent, but her great men have been succeeded by men of great respectability who teach well, up to the point of knowledge possessed by their predecessors, but very little, if anything, beyond. London is now the home of the progressive men like Greenhow, Spencer Wells, Baker Brown, Barnes, and others." He would certainly advise those determined upon a continental tour to go to that city, for there was much to be gained despite the annoyances of irregular hospital hours and the difficulties of appointments. In the matter of therapeutics Paris was inferior to New York as well as to London, since even the great Velpeau was wont to condemn as incurable diseases which we regard as amenable to treatment, and to put his ban upon operations, the legitimacy of which we do not question. Indeed, New York can scarcely be pronounced second to any of the German cities in either the science or the skill of her practitioners.

CHRONIC METRITIS.

DR. BUDD opened the discussion upon Chronic Metritis, with a reference to the several peculiarities in the

structure of the neck and body of the uterus. These constituted, as it were, two separate and distinct organs, presenting radical differences in vascular and nervous supply, as well as in function. He alluded also more particularly to the arrangement of the muscular fasciculi in the body of the uterus, the proper understanding of which would explain the reasons why the disease under consideration was occasionally limited to a certain portion of the organ. This disease, then, which is one of the sick-room and not of the dead-house, might involve the entire parenchymatous tissue, or it might be confined to the posterior aspect of the womb. It may be the result of acute metritis, either puerperal or not. It may also be due to an imperfect involution after parturition, or, so to speak, to a sub-involution. It may also be caused by a propagation of the inflammation from the cervix, which inflammation has probably extended along the longitudinal fibres; at all events, endometritis may co-exist with the parenchymatous inflammation, and Rokitansky holds that a chronic parenchymatous metritis originates from an endometritis. There is in this malady a marked tendency to exacerbation; during the interval between the two menstrual periods there is a modicum of endurable health, but upon the approach of the molimen the symptoms, both local and reflex, are aggravated. The physiological depletion of a free menstruation affords relief, and at the same time indicates the rational means of treatment. Hence, too, we do not meet with these cases after the grand climacteric, because there is no recurrence of this physiological congestion.

The diagnosis is ordinarily easy; the organ is increased in size, and its sensibility under pressure extreme. There is nausea, deranged digestion, etc. The progress of the disease is slow and steady, while the termination is generally not by resolution.

The therapeutics are unsatisfactory. Depletion, which consisted of the application of leeches, of scarification or a puncturing of the neck of the uterus, and which it was advisable to practise between the menstrual epochs, often gave decided relief. The hæmorrhage should be sufficient, and irrespective of the anæmic condition of the patient. Counter-irritation may be applied to the hypogastric or to the sacral region, although for many reasons the cervix and the fundus are the preferable points. A seton in the hypogastrium, and a nitric acid issue over the sacrum, are excellent modes; but he thought that both might be satisfactorily superseded by the application to the cervix of the actual cautery, or the vesicating collodion, and in the case of the fundus, the strong tinct. iodine introduced by means of a long flexible probe might be substituted. For the displacements which depend upon the increased weight of the organ, we must of course use mechanical supports brought to bear upon diverse points, before we can expect to achieve results at all desirable. For the constitutional treatment, in common with the majority of practitioners, he had come to rely upon fractional doses of the hydrarg. bichlorid. dissolved in the tinct. cinchonæ comp. through the usual medium of the hydrochlorate of ammonia.

Dr. Peaslee said the present topic, chronic metritis, has been made by authors generally to cover a large part of the domain of uterine pathology; as it might well do if it occurs so frequently in practice as most authors assert. Ashwell stated twenty-five years ago that it was of frequent occurrence; Dr. Bennett, shortly after, stated that inflammation of the tissue, or the canal of the cervix, constituted eighty-one per cent. of all the uterine ailments requiring treatment. Churchill also admits the frequency of chronic metritis, though he blends it somewhat as to treatment with the acute form. Scanzoni also admits its frequency, and the difficulty of curing it. Dr. Byford has recently published a volume on the chronic inflammation and displacements of the unimpregnated uterus, of which more than three-fourths is devoted to metritis. Dr. West alone expresses doubts as to the propriety of attaching so much importance to metritis.

We have at present to speak, however, merely of chronic inflammation of the *parenchyma of the uterus;* and especially of the body of the uterus, since inflammation the cervix alone is to be distinguished as cervitis. And as he should, like Dr. Budd, give the results of his own observations, rather than adduce written authorities, he would start with the assertion that chronic parenchymatous metritis was not a frequent but a very uncommon disease; and that the cases so generally denominated chronic metritis were simply chronic congestion of the uterus, or metritis more or less frequently recurring on this basis of congestion.

But in discussing this point it was proper first to inquire—What do we mean by chronic metritis? One of the authors referred to has certainly simplified the matter very much in a diagnostic point of view, by announcing that "a tender uterus is a diseased uterus, and generally an inflamed one." Old Celsus defined *inflammation* to be that state of a part in which there is "rubor et tumor, cum calore et dolore;" and that definition is still adopted without question by very many teachers and writers up to the present time. What a pity that some one of the fathers of our science did not add that Celsus's definition is as truly applicable to congestion as to inflammation? Probably Dr. Bennett himself would not now assert, as he did twenty-five years ago, that eighty-one per cent. of all uterine ailments are inflammatory; at all events, few besides him would now admit such a proposition. Congestion certainly obtains in the uterus, and may, and does, also become chronic; and where shall it be admitted, if not in the class of cases under consideration? Besides, at the present day, we are to regard inflammation not, with Celsus, as a mere *state* of a part, but as a *process* going on in that part—a process of a peculiar kind, and indicated by peculiar and decided symptoms.

Scanzoni partially, though inadvertently, admits the views entertained by himself, in speaking of engorgement of the parenchyma of the uterus as synonymous with chronic metritis. But engorgement is merely a condition; and that condition may be the result of the process properly termed inflammation, or may not; but it is not itself a process—is not inflammation. And when not a result of inflammation, this term is used to mean the same thing as congestion.

But not to speak here of inflammation except in a general way, we discriminate two classes of cases in the class generally termed chronic parenchymatous metritis, viz. simple chronic congestion, and chronic congestion or chronic engorgement, with recurrent attacks, at intervals, of true metritis; on the other hand, he was not certain that he had ever seen a case of inflammation of the uterine parenchyma lasting for months and years, as is admitted by those who take the common view of the subject; though he had seen cases enough of inflammation often repeated in the same uterus. He had said that inflammation was a process *sui generis*, and it is distinguished, if occurring in a sufficient degree in any part to disturb the health essentially, by decided symptoms, and by a febrile reaction at least. It is especially so if occurring in so highly-organized an organ as the uterus. Not to speak of redness, tenderness, heat, and swelling as distinctive—for they may all exist in mere congestion—there is fever, nausea, pain on locomotion, and even in the erect attitude, which compel a

horizontal position, an altered discharge from vagina, and other signs we need not specify here at length. And a woman who has none of these signs had not, for him, an inflammation of the parenchyma of the uterus.

Then, he often sees cases of women who have an attack of the symptoms just specified, which continue for a week or two, and then subside. The patient then recovers so as to be able to walk and ride, perhaps; though she is never without tenderness and a feeling of weight in the uterus. This condition remains for weeks or months, when an attack like the first recurs; and then changes go on for years perhaps. Here he recognises a case of recurrent metritis on a basis of chronic congestion, or of a chronic engorgement, which is sometimes a consequence of former inflammation; and this is the first two of the classes he had specified.

On the other hand, he meets with cases of women who have never had an attack like those recurring in the former class; but who have suffered for years from the symptoms which obtain in the former class after those of inflammation have disappeared. This constituted his second class; and these patients are, for him, in a state of mere chronic congestion of the uterus, or, perhaps, chronic engorgement.

Of the precise proportional numbers in the two classes of cases just described, and usually included under the term chronic metritis, he could not speak positively; but they do not both together constitute one-half, and probably not more than one-eighth of all the uterine cases we have to treat; and the cases of the second class (mere chronic congestion) are much more numerous than those of recurrent inflammation.

The distinction was important, since we maintain that first, it is scientifically accurate; second, the idea that we are constantly meeting with so formidable a disease as inflammation tends to a too severe practice; third, the same idea leads also to incorrect diagnosis, and therefore incorrect treatment of other conditions of the uterus.

To illustrate the last point merely, those who recognise inflammation in all these cases assume, if a displacement of the uterus also exists in the case, that the latter is directly produced by the inflammation, and insist on the treatment of the inflammation instead of the displacement said to be produced by it; while, in fact, according to the general view of inflammation which he had given—and he thought that it cannot be successfully opposed in the present state of general pathology—there is no inflammation at all, but merely congestion, in a large majority of the cases; and when either inflammation or congestion exists with the displacement, the latter is as frequently the cause of the former as the reverse. Of the frequent occurrence of the partial inflammation (confined to the posterior wall) of the uterus, he had doubts. That is the only part easily reached by the finger in our examinations.

In respect to the treatment of these two classes of cases he would say, the attacks of inflammation occurring in the first class are to be treated according to principles too well known to need specification here; and that they generally yield in seven to fourteen days. But of the state of congestion which remains, and which constitutes the entire pathology of the second class, he should speak more definitely.

He should then say that he had no great confidence in any form of mere local treatment in these cases, but relied mainly on the general treatment. He usually takes blood from the cervix at intervals, and usually obtains it by scarification; taking one half ounce to two or three ounces, according to circumstances. He preferred the scarificator first introduced by Dr. Budd, having a point like that of a cataract-needle, and effecting a puncture instead of an incision. If leeches are used, one at a time was usually sufficient.

But he considered it indispensable to a permanent benefit from our treatment—for all must admit the great difficulty, and some assert the impossibility of curing these cases—that especial attention be paid to the state of the skin, the bowels, and the liver, and that the excitement of social life be retrenched. This includes first, warm apparel, the use of the flesh-brush, baths, and especially, in many cases, sea-bathing; second, laxatives as may be required; third, mercurials at short intervals if the liver be inactive; a single dose at a time, and a mild one. He agreed with Dr. Budd in recommending the bichloride of mercury in a bitter infusion; and also frequently used the bromide of potassium ten or twelve grains three times daily. Fourth, absence from home, and exemption from domestic cares, is of great avail in these cases. Hence travelling abroad is to be recommended. It is not so much the mineral waters at the various watering-places visited which benefit, as the amusement and the absence of care. A sojourn at a water-cure is frequently beneficial for a similar reason; but the patient too generally relapses after her return. He would not advise, with some, that she should live absolutely *absque marito*, as the idea of entire isolation leads to depression of spirits, which interferes with recovery. Of course, she should drive much for the sake of the air, and stand and walk but little.

Dr. Barker confessed that he was somewhat surprised at the views just expressed, which were, indeed, opposed to all eminent authority. He regarded Dr. Budd's explanation of the anatomical and pathological conditions of the neck and body, differing as they did in so many essentials, as affording a much more rational disposition of the difficulties in our study of the disease. He submitted that the whole organ, which in the peculiar character of the tissue itself resembled bone or cartilage more closely than any other material, was quite low in the scale of vitality; that, therefore, febrile excitement was not a necessary concomitant of the malady. He agreed that a tender was not necessarily an inflamed uterus, since there were intervals between the periods of exacerbation, in accordance with the laws governing all tissues of low vascular type, such as bone and cartilage when inflamed. But of what use was the distinction between chronic inflammation and chronic condition? Simply to prevent unnecessary depletion. What, then, was chronic metritis? The color, size, and pathological condition of the body, as revealed by the speculum and other means, indicated something. The body might be inflamed throughout the extent of its parenchymatous tissue; but the inflammation was generally partial, and more frequently limited to the posterior surface. This was also accompanied by an increase in the size of the organ, and nodosities might be detected by rectal examination; which last, also, near the period of menstruation, disclosed sensitiveness on pressure. A second form of the malady was marked by a ramollissement of tissue, which was rare. To speak within bounds, he had seen but ten instances, and these he fell upon in the dead-house. There was still a third variety, characterized by the association of a chronic endometritis with a chronic inflammation of the muscular tissue of the uterine walls. Here there was usually some disturbance of the menstrual function, dysmenorrhœa, amenorrhœa, etc. Submucous, fibroid tumors which follow in abortions, as the result of imperfect cicatrization, might also be present. It was, however, contrary to his experience that there should be a chronic endometritis without a chronic parenchymatous inflammation.

In discussing the treatment, he would premise that

chronic metritis never subsided spontaneously during menstrual life. Pregnancy might cure, because the involution which followed parturition softened and absorbed the plastic effusion. Dr. Benuett, who first among the English called attention to the disease, was in the habit of applying an issue to the cervix uteri, as a drain or modifier of the increased physiological action; but bearing in mind that the cervix was merely a contiguous organ, not much benefit could be expected from this procedure, even when such powerful agents as the potassa cum calce, the potassa fusa, and the actual cautery, were employed. The same remark may also apply to depletion. His favorite method consisted in large vaginal injections of hot water, against which, when externally employed, no exudation was proof; and here also the speculum showed an extraordinary change in the tissue of the whole vaginal wall, besides relieving the accompanying derangements of the menstrual function. An excellent way of administering this injection was (the patient being in the position for delivery by forceps), by means of Davidson's syringe, a vessel containing the water of required temperature, and an india-rubber cloth gathered up in such a way as to conduct the water back again into the vessel, whereby a continuous stream, equivalent to several gallons in fifteen or twenty minutes at a time, was insured. For the chronic metritis associated with the chronic endometritis, Argent nit., Acid. chromic., Plumbi Iodid., Hydrarg. submur., and the Zinc oxyd., had been brought into requisition. Lately, however, he had come to rely upon the application of unguents to the fundus by means of simple suppository tubes, or uterine porte-cerates. For this purpose, his own instrument, usually answered very well; but the modification by a recent graduate whose name had for the moment escaped him, which admitted the unscrewing of the end, was a decided improvement. Simultaneous with this adaptation, Dr. F. D. Lente's porte-cerate was introduced to the profession (for description of which see Medical Record, Vol. I, p. 364).

Dr. Thomas's modification of this last can scarcely be styled an improvement, since by it the instrument gains a needless capacity, and thus becomes, without any compensating offset, too cumbersome.

For the anæmia, associated with this complaint, he prescribed: ℞. Hydrarg. protiod., gr. ⅓; Ferri sulph., gr. i.; Pulv. opii, gr. ¼. M. Ft. pilul. No. 1. Sig. Ter in die.

The Academy adjourned after a motion that the discussion be resumed at the next session.

EAST RIVER MEDICAL ASSOCIATION.

Stated Meeting, Nov. 6, 1866.

Dr. Verranus Morse, President, in the Chair.

KOUSSO AS AN ANTHELMINTIC.

Dr. Burke, after the election of officers for the ensuing year, presented a specimen of the Tænia Solium (or tape-worm), with, what was somewhat unusual, the head entire and attached. The patient by whom the parasite had been passed, was a robust man of ordinary regular habits, aged 35, who had been suffering from symptoms of dyspepsia during the past two years. The cause of his difficulty, however, had been suspected from the fact that he had more than once evacuated portions of the worm. He had tried the ordinary remedies, including the oil of male fern, while under treatment by various physicians, but without benefit. Having been encouraged by his success with the Abyssinian anthelmintic, upon which the Parisian Faculty of Medicine had reported favorably in 1848, he at once employed it in the form of fine powder, in the dose of six drachms. As the drug possesses no cathartic properties, he followed it in three hours with a brisk dose of calomel and jalap, which expelled the entozoon as presented. He had never yet failed with the remedy, which was not the case in his hands with the seed of the pumpkin (*cucurbita pepo*). He had other specimens as fruits of this treatment, and noticed that the width of this parasite was less in the case of females.

Dr. Hart, in these cases of helminthiasis, had been unable to recognise any very striking symptoms, not even the continual craving for food. The disease, which was popularly regarded as very common, he had every reason to believe was not so, when the ratio of its occurrence to the population was considered. He had never employed the kousso; the ordinary combination of the oleum terebinthinæ with ol. ricini having so far proved, in his hands, quite reliable.

Dr. John Surady, as an instance of the anomalous symptoms which may occasionally accompany this condition, cited that of a negro who presented himself at a college clinic some years ago. Before this, for some months, he had been under observation at one of the dispensaries, with widely dilated pupils and totally blind. For some reason or other the presence of tape-worm was suspected, and the hypothesis having been verified by its dislodgment, the visual function was immediately restored. According to the best of his recollection grated pumpkin-seed was the remedy employed.

Dr. Thoms had frequently used with the most beneficial result, a decoction of the bark of pomegranate-root (*punica granatum*) after other remedies, excluding kousso, had failed.

The meeting then adjourned.

Correspondence.

HOSPITAL APPOINTMENTS—A REJOINDER TO "E. P."

To the Editor of the Medical Record.

Sir—Your correspondent "E. P.," who discusses with undue verbiage and no little acrimony the subject of hospital appointments, more than intimates that unfair means are practised to obtain these public positions, particularly by one class and not by another. He essays to seduce us to the inference that "rings" exist in the profession as well as in the body politic, and that in the matter of choice appointments the line of succession has been marked out, perhaps to the third or fourth generation. Now, sir, "E. P.," who probably congratulates himself as the author of a shrewd state paper, should know that insinuations are not assertions, any more than allegations are proofs. In truth, were I at all inclined to breed a controversy in regard to a matter of very trifling importance, I might call upon him for the "onus probandi;" but I forbear, since such a procedure might invest his hidden meanings with the dignity of undisputed fact.

I ask, Mr. Editor, if it is at all essential that vacancies should be advertised, especially when "E. P.," at the very outset, makes the admission, so very damaging to his client's cause, that "applicants were not wanting for the place." There is always a routine of form, or, if you please, a kind of "red-tape," to which all applications or petitions must be subjected. Can a defeated candidate, if I may be pardoned the obvious misnomer, therefore complain if the victory be lost on account of misdirected effort? I confess that I can see no alarming evil even in a monopoly of offices, provided

their duties are satisfactorily performed, and the incumbents are willing, even under the spur of "the interests of their schools," to take upon themselves the additional labor of clinical teaching. Two parties are benefited, "he who gives and he who receives." May it not be also possible—and I put the question because too many are apt to assign false reasons for success—that enterprise and hard study have advanced some to the front rank of the profession, while the want of these essentials has left the great mass to occupy the position of mere *laymen*, ever ready for honors, no matter how cheap, provided they be glittering?

Again, I think that it may be demonstrated that non-professors are very seldom inclined to be clinical teachers; that they, in fact, ignore that large and struggling class in the chrysalis stage of pupilage, whose seekings after knowledge, at times perchance rudely manifested, are looked upon as personal annoyances. And I claim, by virtue of the assumption that I may be able to defend my premises, that those men who have developed the resources of our public institutions, and have turned them to good account, are fully entitled to laurels so fairly won. Furthermore, the experienced teacher, in my opinion, should not be sacrificed upon the altar of expediency, to appease a class, how formidable soever in number, who mistake prejudice for principle, and bewail instead of striving to better their fate.

Before bringing to a close my note, which you may use as you deem proper, I must declare my principle to be, never to sacrifice a certainty for a contingency, and at the same time assure your readers, should you vouchsafe them, that I am neither "a distinguished professor," nor have I yet been *button-holed* for an autobiography. I simply claim to advocate what I conceive to be the best interests of all desiring to promote clinical teaching.

AMIC. PROF.

NEW YORK, Dec. 3, 1866.

MEDICAL MATTERS IN PHILADELPHIA.

PHILADELPHIA, December 1, 1866.

[TO THE EDITOR OF THE MEDICAL RECORD.]

SIR—Since my last, our COUNTY MEDICAL SOCIETY has held its November conversational meeting, at which the subject of cholera was again discussed, being introduced by a paper prepared by Dr. Robert Burns, of Frankford, whose experience was extensive during the two last epidemics; but as so much material has accumulated in the columns of the RECORD upon this absorbing topic, which has received such full exposition, I have refrained from procuring for you any record of the discussion alluded to.

The NORTHERN MEDICAL ASSOCIATION has had two meetings since I last wrote to you. Epilepsy formed a principal topic of conversation, which was participated in by nearly all of the members present. The usual want of success attending the various treatments vaunted as cures at various times, was generally regretted; but there seemed to be a disposition to justify the entertaining hopes that the bromide of potassium would be found of much more value than any other remedy, and that in many cases it would be competent to cure; and several instances were related where apparent cures had followed the continuous use of that article in rather large doses, and especially when combined with small doses of the bromide of ammonium. A formula reported as having been successfully employed by several of the members, and which, I believe, was said to have been taken from one of the foreign journals, I copy for the benefit of any of the readers of the RECORD to whom it may not be already familiar: ℞. Potass. bromidii ʒ vj., ammon. bromidii ʒ ij., potass. bicarb., grs. xv., tr. calumbæ f ʒ jss., aquæ puræ f ʒ iijss. Mix. Dose. A teaspoonful three times a day.

Bromide of potassium was extolled as a producer of sleep in various disturbances of the nervous system; and one member narrated a case of asthma of thirty years' standing, which he benefited greatly by the administration of this remedy in doses of ten grains three times a day.

The subject of false conceptions formed the subject of one evening's discussion, and in connexion with it a paper was read from Dr. Louis M. Emanuel, of Sinwood, Pa., narrating an amusing series of coincident family casualties, in which, out of six sisters pregnant at the same time, four of them aborted, two of them a fœtus at three months, and the other two extruded uterine tumors. One of those aborting a fœtus at three months, retained a second fœtus within the womb, which she came near losing too, but which is now apparently going on all right to term. I will condense from the paper a brief account of these cases.

Sister No. 1.—Mrs. V——, æt. twenty-five, who aborted twins at three months, five years ago, but has since given birth to two living children at term, on the 7th of August last, at ten o'clock P.M., sent in haste for the doctor, who found her losing blood rapidly by uterine hæmorrhage, the os being dilated. The hæmorrhage was checked, but with some difficulty, and the doctor remained with the lady an hour after all hæmorrhage had ceased, when believing her to be comfortable he returned to his home and his bed, but he lost his sleep that night, for at 2.30 A.M. following, he was again called to the bedside of the lady, who at the close of the day aborted a three months' fœtus. Hæmorrhage returned on the next day, and vaginal examination revealed an os dilated to the size of a silver half-dollar, permitting the protrusion some distance beyond its orifice, of a tumor feeling much like a placenta, which, after careful examination and consultation with his father, the doctor decided to be a second fœtus within its membrane. In the course of twenty-four hours the uterus contracted sufficiently, and retracted this body within the os, which closed over it. At nine P.M. on the 21st, Dr. E. was again summoned by this patient, and found her much exhausted by uterine hæmorrhage, which had been going on for several hours. This hæmorrhage was checked, and the woman recovered her strength, since which time there has been no more hæmorrhage, and the abdomen is increasing in size with the retained twin, confirming the diagnosis. It is unnecessary to detail the treatment pursued with this case, whose peculiarity consists in the aborting one fœtus and retaining the other, and continuing its development.

Sister No. 2.—Mrs. L——, æt. thirty, mother of five children, while nursing her sister, No. 1, the case mentioned above, was herself taken with uterine hæmorrhage on the 10th of August. Vaginal examination revealed a prolapse of the uterus to within three-fourths of an inch of the external orifice, and much enlarged, the lips of the os being soft and patulous, and dilated sufficiently to permit the introduction of the end of the index finger. She was treated similarly to her sister, and for convenience a bed was made up for her on the floor of the room occupied by sister No. 1; but it seems this position was not sufficiently convenient for all concerned, for on entering the chamber at his next visit, the gaze of the doctor fell upon a most entertaining and encouraging family professional group. Lying in the same bed, side by side, were the two invalid sisters, each with a young infant on her other side. On the 11th, Dr. E. removed a good deal of coagulum from this patient, and uterine contractions coming on during the night,

he removed from the uterus a tumor (the specimen was exhibited), pyriform in shape, and weighing some six ounces, under which, at its posterior and most dependant portion was attached a smaller tumor. The whole was covered with a semi-organized fibrous membrane of pinkish hue. On an incision being made into the anterior wall, which was three-fourths of an inch thick, and quite tough, about half an ounce of a clear albuminous fluid escaped, revealing a cavity lined by mucous membrane, floating within which, and attached to its upper wall by a small pedicle, was a small body, the size of a pigeon's egg and the shape of a calf's bladder, filled with a perfectly clear and transparent fluid, so that writing could be seen from one side to the other. The posterior wall of this mass was very thin, and the whole inner lining was smooth, glossy, and slightly bluish in color, with several more darkly blue elevations beneath, and it was nourished by numerous small blood-vessels, which could be very readily traced. After the removal of this body hæmorrhage ceased, and there was no more trouble with that case.

But alas! *Sister No.* 3, Mrs. H——, æt. 33, living some miles distant, hearing of her sisters' misfortunes, came down to assist in nursing them, but soon becoming unwell returned to her home; was put to bed, and passed from her uterus a solid tumor weighing about four and a half ounces, of which, unfortunately, Dr. E—— could procure no further description.

Sister No. 4.—Mrs. C——, æt. 28, was naturally anxious about Nos. 1, 2, and 3, and left her home to give her sisters the benefit of her attendance, but shortly after her arrival, she too felt premonitory symptoms of something going wrong with her; returned to her home, and aborted a three months' fœtus.

There were two other married sisters, Nos. 5 and 6, also pregnant at the same time, but were afraid to visit Mrs. V. (sister No. 1) lest they too might participate in the family failing, and they were disposed to attribute the mishaps of Nos. 1, 2, 3, and 4, to the character of the drinking water!

This was certainly an unusual chapter of coincident family casualties.

At the more recent meeting of the Northern Medical Association, you might almost have imagined that the irrepressible spirit of Sangrado had abandoned the shades of oblivion, and quietly pervaded the apartment to direct the proceedings, or at least carve out a channel for their current. Dr. Wilson read a paper entitled, "A Plea for the Lancet," in which he regretted that the use of the instrument was so much neglected at the present day, and advocated its more frequent employment for the arrest of disease, especially in the early stages of inflammatory affections, etc., etc.; and a most bloodthirsty discussion ensued. Eyes that had long become unused to frequent sights of blood, sparkled with the reminisceneces of yore, and the salutary effects of bleeding in the twenties and thirties, and the forties even, were descanted on with vehemence; one rising to express his reliance on the lancet as another was sitting down, until the hour of adjournment arrived unawares, ere a single opponent of the lancet had secured an opportunity to get a word in edgeways. It was offered to continue the subject at the next meeting for the benefit of the anti-bleeders; but a new subject was preferred, after the passage of a resolution to print the paper, together with some of the principal comments it had called forth.

It was acknowledged that there has been a change in the type of disease, or a change in the constitution, which does not admit of bleeding to as great an extent as formerly, yet still the advocates of the lancet could not recall with regret any instance in which they had bled a patient, though of late they had many cases of regret that they had not bled their patients; and they attributed the desuetude of the lancet as much to a yielding to the popular prejudice against it, as to any change of type or constitution. The important point is, not to be afraid to take blood from the arm, but to know when to take it, and how to take it, for there is in disease a time to bleed, and a time not to bleed.

I have noticed recently, on one or two occasions at Prof. Gross's clinics, that in the *treatment of fracture of the clavicle* he has abandoned the use of the pad in the axilla. This he considers unnecessary, and simply brings the elbow in front of the chest with the hand clasping the opposite shoulder, and confines the limb by means of several broad strips of adhesive plaster partly encircling the thorax, placing a compress over the seat of fracture only when occasion requires it. A vertical strip secures the circular ones. By this method of dressing, respiration is not impeded as when a roller encircles the entire chest, and the dressing can be readily renewed strip by strip, should such a change be from any cause desirable.

In connexion with a case of some weeks' standing of dislocation of the humerus into the axilla, reduced by planting the heel in the axilla, and making traction at the wrist, Dr. Gross recently adverted to the test of Prof. Dugas, of Augusta, Ga., who some few years since called the attention of the profession to the fact, that a patient whose humerus had been dislocated into the axilla, would be unable to grasp the opposite shoulder with the hand of the affected limb, and that the elbow would stand out from the body, and could not be brought down to the side with facility; remarking that a paragraph recently published in the Medical Record contradicted this statement; and instanced two such dislocations, in which the disability to grasp the opposite shoulder did not exist, and the elbow could be brought to the side with facility, and therefore regarded this test as unreliable; but that in all the cases of recent standing that he had met with personally, this inability did exist, and that therefore, in his opinion, the diagnostic value of this test was unimpaired, although, as with all rules, exceptional cases might sometimes occur. The most reliable sign of this dislocation, Dr. Gross considers to consist in the inability to bring the elbow in contact with the side.

I have also observed in several cases of strabismus operated upon this winter at the same clinic, that the tendon of the affected muscle has been divided, instead of the body of the muscle itself, as of old, and that the incision in the conjunctiva has been horizontal, and subsequently secured by a delicate thread, which process, it is claimed, prevents protrusion of the ball, exuberant granulation, etc.

A new incumbent has been elected to the position of Physician in Chief to the Insane Department of the Philadelphia Hospital (almshouse), in the person of Dr. David D. Richardson, formerly for nearly three years a resident physician in the Philadelphia hospital, and subsequently for six years resident physician at the Northern Dispensary of Philadelphia; the managers of which institution, in accepting his resignation, passed some very complimentary resolutions, expressive of their regret in losing the services of such an efficient and competent officer. Dr. Richardson is well known among the profession here as a hard worker, and a favorite and successful private medical tutor, and will doubtless give great satisfaction in the position to which he has been elected.

Dr. Charles Carter has been elected to fill the vacancy at the Northern Dispensary.

A new cure for hydrophobia is reported in one of our

daily newspapers, copied from the *Leipsic Journal*. It consists in bathing the wound as soon as possible with warm vinegar and water, and then after it has dried pouring upon it a few drops of muriatic acid. No cases are given, nor authorities quoted.

Prof. Wood has just published a new edition of his invaluable work on the Practice of Medicine, in which all the subjects discussed, including some which have attracted prominent attention since the last edition of the work left the press, have been brought down to the latest dates.

It is reported that we may soon look for a new edition of Prof. Wood's Therapeutics.

Yours truly,

C. J.

WHO IS THE AUTHOR OF TAYLOR'S SPINAL INSTRUMENT?

To the Editor of the Medical Record.

Sir:—A correspondent, who signs himself "Historicus," having in the last number of the Record (November 15) charged me with using Dr. Henry G. Davis's method of treatment for Pott's disease of the spine, without acknowledgment, boldly appropriating for Dr. Davis the whole credit of the success of my instrument, it becomes necessary for me to state the *whole* "truth of history" in reply.

1. The article by which "Historicus" attempts to sustain his assumption in behalf of Dr. Davis was published before I began the practice of medicine. I never saw nor heard of that article till now. I have just read it, and am surprised to find that there is neither illustration, nor verbal description, nor any intimation, direct or indirect, as to the construction of his apparatus; so that if I *had* seen it, no idea could have been formed from its perusal of the mechanical arrangement of his instrument! Moreover, that article, while giving no hints of the form of the apparatus itself, does state very clearly its *action*, which is just the action that I have always opposed, and to avoid which my apparatus was contrived.

2. The first time I saw Dr. Davis's instrument it was on the back of a dissatisfied patient. This patient had previously been under my care—in fact, was one of the first patients I ever had. I had endeavored to support the back by increasing the power of the spine muscles—a practice still recommended by many—and with decided benefit for a time. The improvement was not permanent, however, as, from the nature of things, it could not be, and the case passed out of my hands, and ultimately into the hands of Dr. Davis. In the meantime another case presented itself—my third of Pott's disease; and being now satisfied that mechanical aid was necessary in these cases, I set out to find a suitable apparatus. At that time I do not think I had ever heard of Dr. Davis or his treatment; or, if I had heard of him, I knew nothing whatever about his method. I had but just begun practice, and there had been nothing to attract my attention to it. On applying to all the instrument-makers in the city, I could find nothing which at all answered my ideas of what was requisite in these cases. I consequently contrived an instrument to suit myself. After using it in several cases, the patient first mentioned, hearing that I had contrived an instrument, returned to me, and thus I was afforded the first opportunity, as above mentioned, of seeing Dr. Davis's apparatus. This was, as near as I can remember, early in 1859, from which I date the successful using of my apparatus, though it had been maturing during the previous year. At a later period this case came definitively into my hands again, without the slightest suspicion, however, that there was a change of treatment in consequence of a change of physicians. Very soon after this I called on Dr. Davis, and at my request he showed me his instrument and explained its action. This, as I understood it, was simply a better plan than any in use of lifting from the hips. Since then I have frequently seen his apparatus, as applied by himself; and this letter of "Historicus" is the first intimation I have had that it originally involved any mechanical principle in common with mine.

3. "Historicus" accuses me, by implication, of claiming to be the first to see the necessity of relieving pressure on the diseased vertebræ. Your correspondent has here called up a ghost for the purpose of slaying it. I have made no such preposterous claim. The only question which presented itself to my mind was, "how to do it"—a simple question of mechanical principles as applied to the spinal column. I believe it to be true, however, that no system of mechanical treatment has been proposed which has not had in view the relief of pressure on the diseased vertebræ. But whether or not the profession at large has been taught this by Dr. Davis, is a question between them and him. I simply claim for my instrument *a more perfect mechanical arrangement* than exists in any other I have seen or heard of.

4. It should have occurred to "Historicus," before charging me with a grave professional crime, that, even if identity could be shown between the two instruments, it is quite possible for two persons to conceive the same ideas, and adopt similar plans of treatment, without each other's knowledge. But is there any similarity of principle or action between Dr. Davis's instrument and mine? I deny that there is, or rather that there was, at the time when, and for some time after, mine was introduced to the profession.

"Historicus" quotes from Dr. D.'s article in the *Medical Monthly* for March, 1856, to show that Dr. D. condemned crutches. But *why* did he condemn them? Not because they were wrong in principle, as I regard them, but because they "impinged on the bundle of nerves and blood-vessels which meet in the axilla." In that article the doctor claims for his instrument that it avoids this difficulty, and not that it introduces any new principle. So far as appears from this article, Dr. Davis there held to the old idea, which I condemn, of lifting from the hips. The remainder of the article, after the above quotation, is, *verbatim*, as follows:

"I think, however, that this difficulty (pressure on the axillary vessels) has been seen by surgeons, but there was not found any other point where support could be applied. It was rather a choice between two evils, that of no support, or in this way. If we notice the manner in which we raise a child, by putting the hands under the arms, we shall find that we naturally avoid lifting directly up after the manner of a crutch, *but upwards and inwards*, with a degree of pressure with the thumbs upon the scapulæ and the fingers upon the clavicles, thus diffusing the pressure over a large surface, and avoiding in a great measure the nerves and blood-vessels; quite an amount of sustaining force can be borne in this way. *This mode of distributing the pressure is one of the peculiarities of my apparatus, and one in which it differs from all others.*"

It will thus be seen that the only new idea the doctor introduces is, that the pressure on the axillary nerves and vessels is avoided by lifting *inwards* as well as *upwards*, "as you would lift a child." But he nowhere intimates that he is opposed to this upward action; on the contrary, *he tells us how to accomplish it.* Now this old idea of sustaining the trunk from the hips upwards

is *utterly rejected* in my apparatus, whose only action is antero-posterior. That there shall be no mistake in this matter, a cut of Dr. Davis's instrument is here introduced (Fig. 1). It is represented just as I used to see it during the first years of my practice, and as he showed it to me when I called upon him some six months after mine had been in use.

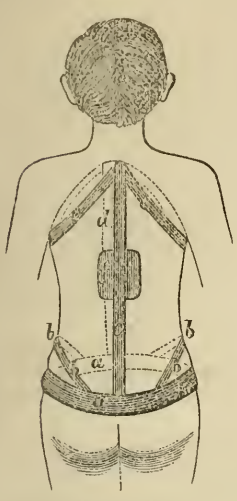

Fig. 1.—Davis's original spinal sustainer.

An iron hoop (*aa*) was let down over the shoulders or drawn up over the hips and *sustained* by the straps (*bb*) which passed from front to back over the crest of the ilium. From the middle of the hoop, behind, an upright (*c*) was fastened, extending over the spinal column to the top of the dorsal vertebræ. A similar upright (*d*) passed up in front of the abdomen and chest to the top of the sternum. From the top of one of these, straps (*ee*) passed *under the arms* and fastened to the top of the other, thus forming a "kind of crutch," but with an inward as well as upward action, "as you would lift a child." Under the posterior upright a kind of saddle was fixed, resting on the projection in the spinal column. Not a bad instrument of its class, but suggesting no function of the lever except what little there might be incidental and secondary to the main idea of sustaining the trunk from the hips upwards.

Now the aim of my paper, read before the State Medical Society in 1863, was to show that while the *physiological* indications for relieving pressure at the point of disease were the same in Pott's disease and in morbus coxarius; the former required a *different mechanical arrangement* from this longitudinal extension, to successfully accomplish the relief sought for.

After I had been treating cases of angular curvature for a year or two, I found a progressive modification in Dr. Davis's spinal instrument. First, instead of one, there were two uprights, one on either side of the spine, like mine, but without joints; then there was a wide cross-piece at the top *to prevent the inward action* of the straps (which Dr. D., in his article quoted from, named as the *chief characteristic* of his apparatus); and, finally, the anterior upright was abandoned, leaving the instrument an awkward copy of mine, but without the stop-hinges for securing and regulating the antero-posterior action. I do not know how much the introduction of my instrument to the profession had to do with the rapid modifications of Dr. Davis's. I merely state what I have seen. If he used other instruments, I have certainly been unfortunate in seeing none but the one sketched and the one just described.

More fortunate with the hip-joint splint, because direct extension only is indicated, Dr. Davis has had the good fortune of being awarded the high honor of devising a plan of treatment for disease of the hip-joint, both correct in principle and efficacious in practice. This award, as I understand it, is for the idea of counter-extension with locomotion. This acknowledgment has always been freely made by me; but it gives Dr. Davis no right of general appropriation. His original hip-joint splint (Fig. 2) had serious, almost fatal, defects, which were remedied by my modification. This modification consists of a cross-piece at the pelvic end of the splint to both ends of which the perineal strap is fastened (Fig. 3), thus saving his ring and catgut arrangement with their jerking motion, and preventing ligaturing of the thigh and pressure on the femoral vessels and

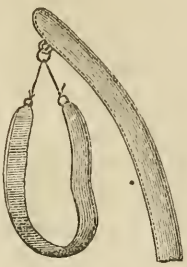

Fig 2.—Davis's.

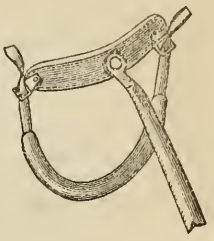

Fig. 3.—Taylor's.

nerves. It probably doubles the efficiency, and quadruples the comfort with which the instrument is worn. After stoutly condemning this improvement, Dr. Davis has appropriated and used it for the past five years. I have been too busy to inquire whether or not he has given me "credit" for it. (See New York *Medical Times*, July 20, 1861.)

5. "Historicus" says, that Dr. Davis "was the *first* to discover that it was the irritation produced by the diseased surfaces pressing upon each other that gave rise to those severe spasmodic or neuralgic pains," etc. If he means by this and similar allusions, that the gastralgia and pains in the chest which I have so often pointed out as the most persistent premonitory symptoms of Pott's disease (often noticed three or four months before the curvature appears), were previously known to him, then the profession will justly hold him responsible for keeping to himself means of early diagnosis so exceedingly important; for early diagnosis in disease of the spine is of the greatest consequence.

And now, Mr. Editor, as this is the first, I trust it may be the last time I shall be obliged to write in self-defence. I have made many forms of apparatus for various deformities, and am constantly adding to the number. If any person intends to claim these inventions as his own, it would save time and trouble to do so at once, rather than to wait seven years after the instruments have borne my name before the profession and the public.

Charles F. Taylor, M.D.

1303 Broadway, Nov. 20, 1866.

Obituary.

Hon. SIMEON DRAPER.

The Faculty of the Bellevue Hospital Medical College, having been informed of the death of the late Simeon Draper, first President of the Board of Commissioners of Public Charities and Correction in the City of New York, and President of the Board of Trustees of the College, do resolve—

First. That they recognise in this affliction the loss of a public-spirited citizen of great executive ability, who found the best and most congenial sphere for the exercise of his talents and enlightened sympathies in the fulfilment of his duties to the impoverished, the friendless, and orphans, while in their performance he displayed that rare union of unwearied personal kindness, decision, genial warmth, and practical wisdom, which endeared him to all.

Second. That during his long connexion with the

public charities of the city he never swerved from his determination to advance the interests of true medical education, whereby the knowledge gained at the hospital bedside should be made available for the instruction of students, who might bear its blessed influence to distant scenes of suffering.

Third. That in the development of these views the organization of this college received from him such hearty and consistent support that its public recognition is due to his memory, both from a feeling of gratitude and the recollection of so many pleasant associations.

Fourth. That a copy of these resolutions be sent, with the expression of our sympathy, to the family, to the Commissioners, and to the Board of Trustees: that they shall be published in the daily morning papers and the medical journals of the city, and be formally read before the class now in attendance on lectures.

ISAAC E. TAYLOR, M.D.,
President of the Faculty.

New Publications.

BOOKS AND PAMPHLETS RECEIVED.

ADDRESS OF D. HUMPHREYS STORER, M.D., President of the Association. Extracts from the Transactions of the American Medical Association. Philadelphia: Collins, Printer. 1866. Pp. 13.

VELPEAU'S LESSONS. Surgical Clinic of La Charité. Lessons upon the Diagnosis and Treatment of Surgical Diseases, etc. Collected and Edited by A. REGNARD, Interne des Hôpitaux. Translated by W. C. B. Fifield, M.D., Boston: James Campbell, 1866. Pp. 103.

THE BRAIN AND CRANIAL NERVES, SHOWING ORIGIN AND ARRANGEMENT. A Chart. By THOMAS S. BULMER, Under-Graduate in Medicine, Toronto University, Canada.

AN INDEX OF DISEASES AND THEIR TREATMENT. By THOMAS HAWKES TANNER, M.D., F.L.S., Member of Royal College of Physicians, etc. Philadelphia: Lindsay & Blakiston. 1867.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF N. Y., FOR THE YEAR 1866.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE, designed for the Use of Students of Medicine. By AUSTIN FLINT, M.D., Professor of Principles and Practice of Medicine in the Bellevue Hospital Medical College, N. Y., etc., etc. Second Edition. Revised and Enlarged. Philadelphia: H. C. Lea. 1867.

FORTY-FOURTH ANNUAL CATALOGUE BERKSHIRE MEDICAL SCHOOL. 1866.

REPORT OF SANITARY RELATIONS OF STATE OF KANSAS. By C. A. LOGAN, M.D.

REPORT OF DELEGATE TO AMERICAN ASSOCIATION OF SUPERINTENDENTS OF ASYLUMS FOR THE INSANE, for 1865–66. By Dr. H. R. STORER, of Boston. From Trans. Amer. Med. Assoc. 1866.

ANNUAL REPORT OF RESIDENT PHYSICIAN OF KINGS COUNTY LUNATIC ASYLUM. 1866.

ILLUSTRATED CATALOGUE OF ELECTRO-MEDICAL INSTRUMENTS. By THOMAS HALL. Boston. 1866.

NARCOTINA, THE NEW ANÆSTHETIC AGENT.—The Chicago Medical Society, at a recent meeting, passed the following: "*Resolved*, that after an examination and fair trial by the committee of the preparation presented to the Society under the name of Narcotina, this Society has no confidence in it as an anæsthetic."

Medical News and Items.

PERSONAL.

DR. HORACE GREEN, LL.D., Member of the Medical Society of the County of New York, Fellow of the N. Y. Academy of Medicine, and up to the period of its discontinuance, President Professor Emeritus of Theory and Practice of Medicine in the N. Y. Medical College, died November 29th at Sing Sing, N. Y., aged 64 years. His name was prominently connected with the subject of the introduction of the probang into the trachea, and the injection of tubercular cavities, both of which matters gave rise to an animated discussion before the Academy.

Dr. Arthur Hill Hassall, author of the "Microscopic Anatomy of Disease," "History of British Algæ," etc., but more widely known by his valuable reports on the Adulteration of Food and Drink, has been granted a pension on the civil list by the British government.

T. Edwards Clark, Professor of Chemistry at Williams College for nearly ten years, has resigned.

Dr. Riedl, Director of the Vienna Lunatic Asylum, has been summoned to Miramar, to consult with Dr. Jilek upon the case of the Empress Carlotta, consort of Maximilian.

CASTLETON MEDICAL COLLEGE of Vermont has sold out its property and resigned its being.

AT the Annual Meeting of the New York Medical Journal Association, held at the Reading-Room, No. 58 Madison Avenue, on the 4th ult., the following officers were chosen for the ensuing year: President, Dr. Gurdon Buck; 1st Vice-President, Dr. Isaac E. Taylor; 2d Vice-President, Dr. Stephen Smith. Dr. E. Delafield, Dr. W. Blackman, Dr. H. D. Bulkley, Dr. J. L. Banks, and Dr. DeWitt C. Enos, were elected as Trustees, to fill the place of those whose term of office had expired; and Dr. A. B. Mott and Dr. Alfred Underhill were chosen to fill the vacancies caused by the election of Drs. Taylor and Smith to the office of Vice-President.

THE FOSSILS AT COHOES, N. Y.—Professor Marsh, of Yale College, pronounces the fossils recently found at Cohoes, N. Y., the bones of a female mastodon, of full growth, though comparatively young, and says that the animal must have existed over 10,000 years ago.

THE DEATH OF TROUSSEAU.—A cable despatch to the *Courrier des Etats Unis*, announces the sad intelligence of the death of this distinguished French professor. The particulars are not given. In a future number we shall give an obituary notice of the deceased.

A MUNIFICENT PREMIUM.—Dr. John O'Reilly offers a premium of six hundred dollars for the best "Essay on the vital or ganglionic nervous system, the oxygen and the blood, and the cerebro-spinal nervous system," to be competed for by medical students of the United States, and medical graduates of three years' standing. The sum above named is placed to the credit of the Academy of Medicine in the Emigrants' Savings Bank.

A RULE TO BE OBSERVED DURING THE USE OF ETHER SPRAY PRODUCERS.—Ether vapor, having a specific gravity of 2.586, is two and a half times heavier than atmospheric air. The vapor will accordingly fall down upon a candle and be ignited. By raising the source of light above the place of operation, this annoying catastrophe, which has already occurred in England, will be avoided.

ERRATUM.—Dr. Rockwell's article, page 419, last line but one, instead of *cholera* read *chorea*.

Original Communications.

HYPODERMIC USE OF QUINIA.

By H. D. BULKLEY, M.D.,

PHYSICIAN OF THE NEW YORK HOSPITAL.

The hypodermic injection of medicines has been so long in use that it may be considered as fairly incorporated in our list of remedial means in the treatment of diseases. The articles thus far most frequently employed for this purpose have been the salts of morphia, atropia, and, to a limited extent, of strychnine, and to a still more limited extent of quinia; and as but few facts in connexion with the use of quinia in this way are on record, at least in works of easy access here, and as the great field for its use, afforded by the extensive prevalence of malarious diseases in different parts of our country, makes it desirable that we should be able rightly to estimate its value in combating this form of disease, we have thought that a few cases in which it has been used here might prove of interest, and also of practical value.

We do not propose to discuss the merits of this mode of practice of introducing medicines into the system as a whole, but to confine our remarks to its application to the use of quinia in this way. We doubt not that the hypodermic plan of treatment has been employed too indiscriminately, and too frequently by some, and that it has, in some few cases, been followed by unpleasant results; but we feel that such cases are comparatively few, and believe that the balance is entirely in its favor.

Three cases of congestive remittent fever, two of them of a very severe form, occurred during the month of October last, under our care at the New York Hospital, which were successfully treated by the use of quinine in this way, at least so far as the cold stage was concerned.

The first case was that of a seaman, forty-nine years of age, who had been sick eight days, and was in a state of collapse when brought to the hospital. He was cold; pulse about 100, and barely perceptible; could hardly answer in a whisper when questioned; and could only protrude the end of the tongue, which was cold, and he was unable to swallow. The hot-air bath was at once used, and sinapisms applied to the back of the neck and inside of the thighs, and injections of brandy and beef-tea (℥ j. brandy to ℥ iv. beef-tea) given. Injections of a solution of quinia were then made into the cellular tissue of the upper part of the chest, of four grains, at 3.45 P.M., two grs. at 6 P.M., and 4 grs. at 8 P.M., amounting in all to ten grains, estimated to be equal in efficacy to forty grains by mouth. He gradually improved under this treatment, so that at nine P.M. he became warm, and could protrude his tongue. At midnight, five grains of quinia were given by mouth, and continued every two hours, with ℥ ss. of brandy every hour for a short time. The subsequent treatment consisted, as usual in such cases, of quinia in decreasing doses, and moderate stimulation, followed by iron and tincture of bark, and the patient was about the ward at the end of twelve or fourteen days.

The second case was that of a stout, well developed sailor, forty-four years of age, who was brought into the Hospital at eight A.M., Oct. 8, in a state of collapse from a chill the night before, from which he had not rallied. His skin was cold and clammy; pulse could not be felt at the wrist; considerable dyspnœa and anxiety, with some laryngeal hoarseness; unable to swallow; tongue slightly coated, white, pale, and quite cold. He was conscious and rational, but could only speak in a whisper, and there was great thirst. As the stomach was not irritable, ℥ ss. of whiskey was given every half hour, and ice to allay the thirst.

The treatment was commenced with a stimulating enema, dry cups to the chest, and sinapisms to the nape of the neck and legs; and to avoid irritating the stomach, and for speedier effect, quinine in solution was injected into the integument of the upper part of the chest; four grains at 8.20 A.M., 9.20 A.M., 11 A.M., and at 1, 2, and 3 P.M.; and about the middle of the day, three doses of five grains each were given by the mouth at intervals of half an hour; but as this disturbed the stomach, it was discontinued. In the afternoon, dry cups were again applied, the use of stimulants being continued. At 4.30 and 6 P.M., the hypodermic injections were again given. At 8 P.M., quinine was given by the mouth, five grains every hour. The amount of quinine given hypodermically from 8.20 A.M. to 6 P.M. was therefore in all thirty-two grains, estimated to be equivalent in therapeutic value to a little over ʒ ij. by mouth.

At 3 A.M. the next morning (October 9), at the end of nineteen hours, his pulse was perceptible, and he became comfortably warm. His voice was now stronger, but it indicated, as well as the breathing, laryngeal trouble. Nothing abnormal, however, could be seen in the throat, nor could anyt ing be felt by the finger. The quinine was continued every hour, and the whiskey reduced to ℥ ss. every hour, and beef-tea ordered freely through the day. At 8 P.M. he had fully rallied, though there was considerable dyspnœa and restlessness, and the quinine was reduced to five grains every two hours. In thirty-six hours the patient had taken thirty-two grains hypodermically, and ʒ ij. by mouth of quinine, estimated to be equal in therapeutic value to 248 grains of the salt.

He progressed favorably until the 14th (five days), reaction having been fully established; and both the quinine and whiskey having been reduced in quantity. Ecchymosis had taken place at one or two points where the injections had been made. On that day, however, he became worse. Obscure symptoms occurred, made up of laryngeal obstruction and pulmonary and cerebral congestion. Stimulants and quinine were now stopped, and ℥ ij. or ℥ iij. of blood taken from the nape of the neck. At midnight he became quite restless, and persisted in rising to have a stool near the bed, refusing to use the bed-pan, when he almost immediately sank back and died, apparently from syncope. No autopsy could be obtained.

The third case was that of a seaman, who entered the hospital, Oct. 22, with remittent fever. He had a paroxysm on the day of admission, from which he rallied, and another paroxysm on the following day, from which reaction did not take place, and in which the sweating was continuous. In the evening he was delirious, face congested, skin hot, with tenderness over the abdomen. Four ounces of blood were taken by cups from the back of the neck; and two injections of quinine, of four grains each, were made in the upper part of the chest, a an interval of about an hour between them, when he began to rally, and became more rational. Two hours later, a third injection of four grains of quinine was made in the neighborhood of the others. Five grains of the salt were then given by mouth every hour, under the use of which he steadily improved. Under the use of diminishing doses of quinine, and of iron and tincture of cinchona, he gradually recovered, and on the 31st was in full convalescence.

In neither of these three cases was the injection followed by any inconvenience; a slight ecchymosis being the only thing at all abnormal, and this soon passing away.

The formula used at the hospital is as follows:

sulphate of quinia, ʒ j; dilute sulphuric acid, 50 minims; water, ℥ j. Of this solution thirty-five minims will contain four grains of salt. The injections were made with the ordinary hard-rubber syringe, which holds just the quantity above mentioned. The quantity of acid necessary to make so concentrated a solution of quinine renders it necessary to wipe the needle used soon after withdrawing it, to prevent its being acted on by it.

The hypodermic use of quinine in malarial diseases is of quite recent date. Dr. Chasseaud, of Smyrna, is said to have been the first to use this method of treatment. He reports (quoted in *Amer. Jour. Med. Sci.*, October, 1863, p. 533), that of one hundred and fifty cases he saw but one relapse after three months, though he generally used but a single injection. He gave iron subsequently. Dr. C. especially recommends this mode of using quinine in the form complicated with gastric symptoms.

Goudas reported in *L'Union Médicale* for 1862 fifteen cases treated in this way, with an equally favorable result.

Dr. James McCraith, senior surgeon to the Smyrna and Aidin Railroad, in a letter read before the Royal Med. and Chirurg. Society of London, in December last (quoted by the *British Medical Journal*, January 6, 1866), speaks of the value of the hypodermic injection of quinine in what he calls "Pernicious Fevers" of malarial origin, and details the case of a patient who had been in a profound coma for a long time, and was incapable of swallowing anything, who was rapidly relieved by the injection of three and a half grains of quinine in each arm. He found it particularly useful in cases of this class.

Mr. W. J. Moore, who was in the Bombay service, also used this plan of treatment extensively, and with very favorable results. He made a solution of thirty grains of quinine, and eight or ten drops of dilute sulphuric acid, and half an ounce of water; and of this, previously strained, he injected from half a drachm to a drachm, the former quantity containing some four grains of quinine. He states that he has employed it in upwards of thirty cases of intermittent fever, and in several cases of remittent, and with almost invariable success, the former class of cases seldom requiring a second application, and the latter usually subsiding after a fifth or sixth injection. He generally introduced it beneath the skin over the outer belly of the triceps extensor muscle, and sometimes over the deltoid; but the effect was equally good when introduced into the thigh or calf of the leg. He saw inflammation follow in only two instances, in one of them owing to a trocar and common glass syringe having been used, and the other owing to the quinine having been in *suspension* instead of *solution*. He therefore considers it important that the solution should be a perfectly clear one.

Mr. M. says, that the best time to inject in the intermittent form is shortly before the expected cold fit; but that it may be done during the first stage with good effect. In the remittent form, he endeavors to inject during the remission, but does not wait for that period. He says, that in severe cases the injection should be repeated at intervals of six or eight hours. He thinks that four or five grains injected into the integument are equal to five or six times that amount taken into the stomach, at the same time that its effects are more certain, and relapses less frequent than when the remedy is given by the mouth (*Amer. Jour. Med. Sci.*, January, 1865, p. 241).

Eulenberg, of the University of Greifswald (quoted by *Amer. Jour. Med. Sci.*, April, 1866, p. 437), reports ten cases in which he was successful in stopping a paroxysm of malarial fever by the injection of two grains of quinine in the cold stage, and also three cases of intermittents, in which he effected a permanent cure by a single injection during the apyrexia. Some have not been able to cut short the disease with so small a dose as two grains.

In our own country, Dr. R. B. Maury, of Port Gibson, Miss., reports in the *Amer. Jour. Med. Sci.* (October, 1866, p. 371), twenty-five cases of malarial disease treated with quinine hypodermically, in December, 1864, and January, 1865, in the General Hospital of the "Confederate" army at Greenville, Ala. Of these, six were of the bilious remittent form, five of the quotidian, thirteen of the tertian, and one of the double tertian. In most of the cases, six grains were the entire quantity used during the intermission or remission—in the severe cases, eight grains were injected. He says, that full cinchonism was produced in forty to sixty minutes. He does not seem to have used it in the congestive form, in which it is most likely to be of the greatest service.

Dr. M. used a solution of quinine in dilute sulphuric acid, sixty minims of which contained eight grains of the salt, and recommends that in cold weather it should be warmed. He used Wood's syringe, and introduced the solution usually into the cellular tissue of the arm, near the insertion of the deltoid, sometimes in the forearm. Abscess occurred in two out of the twenty-five cases, owing, as he thought, to its repetition in the same place.

It is proper to mention in this connexion, that quinine has now been used hypodermically for several months at the New York Hospital, and that my colleague, Dr. G. M. Smith, used it in one case of congestive remittent fever in September, though the result in this case was not favorable. He has since, however, used it with great success in intermittents, not having once failed, in a number of cases already tried, to arrest the paroxysms by a single injection of four grains of quinine, showing the value of this mode of treatment in point of economy, as well as in ease and certainty—the particulars of which, we trust, he will give to the world in due time.

The acid used as the solvent of quinine at the New York Hospital, and also that used by Mr. Moore and Dr. Maury, was the dilute sulphuric. Mr. Lorent proposes (quoted by *Amer. Jour. Med. Sci.*, April, 1866, p. 437) the use of quinine in the form of acetate, thirty grains of which, he says, will dissolve, by the aid of heat, in two and a half drachms of water.

It may not be out of place, in concluding our hasty and imperfect remarks on this subject, to allude to the importance of having the needle used for carrying the fluid under the skin, fine, round, and sharp-pointed, instead of the clumsy, flattened needles too often manufactured in this country; and also, that the solution should be free from all foreign matter.

We have mentioned these cases of the hypodermic use of quinine because we feel that in our country, in certain parts of which malarious diseases are so rife, the subject is one of practical importance, and one which has not yet received the attention which it deserves.

We do not feel that it will supersede the use of quinine by the mouth, because we are aware that it will be difficult, in some cases, to overcome the prejudice against even so slight an operation; but we do feel that in those severe cases of congestive fever which are so often fatal under the ordinary mode of treatment, in some cases of which the patient cannot swallow, and in others in which the stomach is irritable, and in all of which absorption must necessarily be very slow from the low state of nervous power, and in which time is

so important an element in the short period in which we have to act before the expected paroxysm, the hypodermic use of quinine may prove extremely valuable—while the economy of its use in this way, in which a saving of two-thirds, or even, as some estimate it, of three-fourths, is no small recommendation in favor of its adoption. Dr. Maury places the gain at only one-third.

Quinine may have been used hypodermically to a greater extent in our country than we are aware, and we might, perhaps, have added more observations respecting it if we had more thoroughly examined our periodicals on the subject; but our object is rather to direct attention to this mode of employing the article, than to accumulate evidence respecting it.

PERINEAL URETHROTOMY;

RELATION OF A CASE SUGGESTIVE OF REMARKS ON THE TREATMENT OF STRICTURE OF THE URETHRA.

By WM. R. WHITEHEAD, M.D., Etc.,

NEW YORK.

The subject of urethrotomy, which excited lengthy and animated debates in the Paris Society of Surgery, in 1855, has more recently claimed the attention of the profession by the practical teachings of Professor Van Buren, so instructively reported in this journal. A subject so fraught with interest, and which has enlisted so much distinguished talent, is one that I should experience great hesitation in attempting to remark upon, did I not present myself as an humble gleaner in this well cultivated field of surgery, and request only to exhibit that which I believe to be of value, gathered from the stubble. It is not my intention to offer any remarks on the history of urethrotomy: it has been ably discussed by Henry Thompson in his excellent treatise on stricture;* and an interesting critical and historical account of its earlier history, has been given by an accomplished French bibliophilist.† Neither is it my desire to examine with care the deservedly just claims of Syme, who has done so much to cause this operation to be regarded with favor. It is simply in the relation of a case, followed by a few succinct remarks, that I propose to show the result of my gleanings.

A gentleman engaged in business in this city, who has suffered much from stricture of the urethra, came under my care last August. He has frequently been the subject of retention, and several times of infiltration of urine, perineal abscesses, and fistulæ. The distressing symptoms incident to these complicating sequelæ had so much increased that, had they not been relieved, they would soon have terminated most disastrously. He is a person fifty-five years of age, of medium size and height, possesses a good constitution, and in whom are predominantly observed the nervous and sanguine temperaments intimately blended. He has never been addicted to great sensual excesses, and at first attributed his infirmity to a blow which he received on the perineum while a youth; but upon investigation, I failed to elicit information confirmatory of this opinion—as no serious inconvenience was the immediate or subsequent result of this transient injury. When about twenty years of age, however, he contracted gonorrhœa, followed by a gleety discharge, which persisted twelve or fifteen months. During six months, and previous to the disappearance of the gleet, he suffered from chills and fevers, but from which he entirely gained exemption and became thoroughly re-established in his general health on engaging in a seafaring life, which he continued irregularly for seven years. With the exception once of a serious illness from malarial fever, and his urinary troubles, he has enjoyed immunity from other diseases. Two or three years after the cessation of the gleet, he again had a slight discharge, which yielded within twenty-four hours to simple remedies. At the age of twenty-seven he married, and did not observe any diminution in the size of his stream of urine, or any disquieting symptoms about his urinary organs, until twelve or eighteen months after his marriage, when he experienced very frequently the desire to void his urine, and had slight retention. This soon passed away, however, and he felt only an occasional uneasiness in relieving his bladder for a considerable period after the death of his wife. Two or three years subsequent to that event he married again; and three issues resulted from that marriage. But about twelve months after his second marriage he felt pain in making water; voided it more frequently; the stream became very small, and sometimes his urine was impulsed with great difficulty and only in drops. He obtained slight relief from the occasional use of nitre. Violent exertion caused frequently slight retention and pains radiating towards his back. Six or seven years after his second marriage he had retention which necessitated the use of a small flexible instrument, which, on being withdrawn, was followed by the evacuation of blood with his urine. He affirms that not until within the last seven years has the passage of his urine been for any considerable time seriously obstructed, nor has the seminal secretion failed to be ejaculated during sexual orgasm. Since that time his stream of urine has progressively lessened; retention has been more frequent; and a thick, slimy, yellowish or milky-white discharge has been often expulsed from the urethra, permitting, when it occurred, the urine to escape more freely, but attended with much smarting. His urinary disorder has continued to increase; and last February he had an alarming retention of urine, followed by an abscess in the perineum, which was opened, and resulted in a fistula. He has had retention several times since, occasioning other abscesses and fistulous openings, which have caused almost constantly an involuntary escape of urine, rendering his life exceedingly unhappy from much suffering, and mental distress at being afflicted with such an infirmity. Several ineffectual attempts having been made at different times to pass instruments into his bladder, he became discouraged, and ceased to solicit further aid, until I was called to see him. At my first visit, on the 5th of last August, he had a haggard and anxious look, expressive of much recent suffering; caused by a perineal abscess which had lately broken, permitting the escape of matter and urine, and which afforded great relief. The part was very swollen, and the indurated character of the tissues plainly indicated that the perineum had previously been the seat of urinary infiltration and abscesses. A very small quantity of urine passed by the natural channel, most of it escaping through the fistulous opening in the perineum. I recommended a warm bath, flaxseed poultices to the part, and gave proper directions about diet and rest.

August 7th.—I made explorations with a No. 6 bulbous bougie, and found a short stricture just within the meatus; the same instrument encountered a similar one two and a half inches from the meatus. Withdrawing this instrument, and introducing about a No. 3 or 4 bulbous bougie, a third stricture was found

* The Pathology and Treatment of Stricture of the Urethra. London: 1854.

† Verneuil, Arch. Génl. de Méd., 5me. Serie. Vol. 10. 1857.

four and a half to five inches from the meatus, and which arrested the further progression of the instrument.

August 9th.— A No. 3 taperingly conical gum-elastic bougie was introduced, and its point stopped at the deep stricture; but, after some manipulation, entered, and advancing about an inch, was firmly grasped. Gentle and repeated efforts were unavailingly made to pass this instrument further. The patient was chloroformed, but the previous irritation of the stricture caused the instrument to be as firmly held as before; and on being withdrawn, presented on one side two indentations quite close to each other, one of which extended nearly half through the diameter of the bougie at this part.

August 11th.—Two or three kinds of flexible and taperingly conical bougies were used, and some dilatation of the deep stricture obtained.

August 13th.—Flexible instruments were used; and afterwards a No. 5 steel sound, and its point inserted into the deep stricture. Removing this instrument, the point of a No. 9 steel sound was firmly applied for a while against the contraction, and suddenly entering, caused considerable pain. This instrument could be endured but a few minutes; on its removal a warm bath was immediately ordered, with instructions to take another at bed-time, and keep the recumbent posture for a few days.

August 16th.—He had a wan and fatigued appearance. A few hours after the instrumental manipulation on the 13th, he had a severe chill, succeeded by considerable fever, and the formation of a perineal abscess, which I incised; and the escape of pus, and the passage of his urine by the fistulous opening, afforded him relief. Recommended flax-seed poultices to the part; flax-seed tea containing a small quantity of nitre, to be used moderately as a drink; a suppository made of cocoa butter with half a grain of the extract of belladonna, and one grain of opium, to be used at bed-time after a warm bath.

August 18th.—Numbers 4 and 5 flexible instruments occasioned some pain at the stricture near the meatus, and also at the one two and a half inches from this orifice. The point of the No. 4 was stopped at the stricture near the bulb, and after entering it was firmly grasped. These strictures have shown great resiliency.

August 28th.—Having dispensed with bougies for several days, and relied upon rest and constitutional means, the deep stricture permitted instrumental applications with more ease than it had previously.

Sept. 1st.—Passed a No. 3 wax bougie into the bladder; removed it and introduced a No. 4; they were much twisted and roughly indented; exhibited the tortuous course of the urethra, caused by the indurated cellular tissue of the perineum and scrotum. I was unable to form an opinion of the character of the strictures from the appearance of the indentations. Only section of the deep stricture from the perineum can effect a cure in this case; and the preparation of the strictured urethral canal is desirable, so as to admit a suitable guide upon which the operation can be readily practised.

Sept. 4th.—I used several kinds of flexible instruments, none of which passed into the bladder except a wax bougie, which I wormed in as I did on a previous occasion. Prepossessed with the thought of the probability of the operation for his cure being admissible only with the aid of a non-metallic flexible guide, I introduced a filiform whale-bone bougie, but soon withdrew it for fear of making a false passage.

Sept. 8th.—The patient submitted to another exploratory essay with bulbous bougies, which elicited no further information than that obtained previously.

Sept. 9th.—Instructions were given about his diet; he was cautioned to abstain entirely from spirituous drinks, and to take moderately of tea and coffee; an agreeable aperient was prescribed, to be occasionally taken to keep his bowels regular.

He was recommended to exercise greatly during the middle of the day, and to drink each day one or two glasses of Vichy water, regulating the quantity by the degree of acidity of his urine. Each night to take a warm bath, and at times one of the suppositories previously prescribed, containing opium and extract of belladonna, whenever he felt much uneasiness about his bladder.

Sept. 13th.—Patient expressed himself feeling much better; voids his urine with more ease, and attributes his improvement to the constitutional treatment. I passed a No. 4 wax bougie into the bladder and inserted the point of a No. 7 conical sound into the deep stricture, effecting some dilatation of it. The instrument was strongly deviated towards the left groin, and entered only very partially. I made an examination of his urine, with a view to determine positively the absence of organic disease of the kidneys, as being paramount to the success of the operation for his cure. The urine, soon after it was passed, was of a muddy, pale yellow color, faintly acid to litmus paper; allowing it to remain several hours, it exhaled a strong fishy smell, and was still quite muddy, with an abundant white sediment, and strongly alkaline to test paper; on adding nitric acid, and applying heat, no deposit was formed. The sediment had been previously collected and examined with a No. 5 objective, and a No. 1 ocular glasses of a Nachet microscope, and only large prismatic crystals of the phosphates of ammonia and magnesia were abundantly observed, interspersed with a few of the crystals of the oxalate of lime.

Sept. 17th.—Complained of soreness in the perineum. By exposure to wet, and from damp feet, took cold. More water has passed from him than usual, but not so freely as a few days ago. He has obtained benefit from the use of the Vichy water. I passed a No. 3 wax bougie into his bladder, and attempted to pass Syme's staff, but the curve being bad, I failed. I succeeded in passing a No. 1 flexible silver catheter, after shaping it to a curve, the diameter of which I found by measurement to be two inches, and the length of the curve represented by an arc of ninety degrees. This was the first metallic instrument ever passed into his bladder.

Sept. 22d.—From the fatigue of standing several hours, and excitement attending a too prolonged participation in a recent family festival, at which he imprudently indulged in a glass of champagne, he had a wearied and suffering look. The No. 1 flexible silver catheter used at my last visit to him was inserted into the urethra, and firmly seized at its point by the deep stricture; and it could not, until after several minutes, be passed to the bladder. It became obstructed with blood and mucus, and no urine escaped, the cause of which was discovered on removing the instrument. He then expulsed, after much straining, about two ounces of bloody urine in interrupted jets of extreme tenuity. On re-introducing the same instrument, and removing it, I experienced a very rough sensation on passing the deep stricture. I then passed, with ease, however, a No. 1 polished steel staff into the bladder, similar to that used by Syme, but differently shaped, by having a curve which corresponds to the fourth of a circle, the radius of which is an inch, copied from the curve of the flexible silver No. 1 catheter which had just been withdrawn, and a few days before introduced for the first time.

Being provided with a safe guide which could b

readily rendered available, on the 26th of September I practised the operation known as Syme's, interesting to me as having suggested reflections which I believe have resulted in an improved modification of this procedure, and as imparting an ulterior importance to remarks which are to follow.

Operation.—The patient was etherized, placed as in the position for lithotomy, the steel staff introduced, and confided to an aid. An incision about three inches in length was then made in the median line of the perineum, extending to within half an inch of the anterior margin of the anus. The parts were carefully dissected, and after considerable effort the indurated subcutaneous tissue, and the inodular tissue forming the deep stricture, were partially severed, and the fine groove of the instrument touched with the point of the knife. It was exceedingly difficult to feel the staff through the cylindrical mass of dense, resisting tissue, forming the stricture near the bulb, and which was more than an inch in extent. The contraction was, however, thoroughly divided, avoiding the deep perineal fascia, and as much as possible the artery of the bulb, by keeping in the median line. A very wide, curved director, notched at its distal extremity, was passed through the wound, and slid along the delicate staff to the bladder. The staff was then withdrawn, and after cutting the stricture just within the meatus with Civiale's urethrotome, Nos. 13 and 14 steel sounds were easily passed by means of the director into the bladder. On removing the No 14 sound, it was slightly seized by the stricture at two and a half inches from the meatus; but the internal division of this stricture at the time was considered unnecessary, and as adding to the danger of the operation by too many wounds of the urethra.

The patient lost a few ounces of blood; all doubt respecting an incomplete division of the stricture near the bulb was solved by passing the end of my index-finger through the wound into the bladder. He was then carried to his bed, which had been suitably made to receive him, a suspensory bandage adjusted, to guard as much as possible against urinary infiltration in the scrotum, and I then left him without any instrument in his bladder, as recently recommended in this operation by Professor Van Buren, and with a light dressing upon the perineal wound and a plug of well twisted cotton in the urethra at the meatus. He took a half grain of sulphate of morphia after the operation. In the night he had a severe chill, which soon left him on application of bottles of hot water. Having been thoroughly quieted with encouraging assurances of safety, and taken an additional half grain of sulphate of morphia, he soon became composed and slept uninterruptedly until morning.

September 27th.—Passed No. 12 steel sound. His condition is excellent; twelve hours after the operation he passed his water entirely by the natural channel; he takes strong beef-tea.

September 28th.—Doing very well; slept well last night; voids nearly all his urine by the natural way, and the parts are in good condition; passed No. 12 sound, causing considerable pain in the perineum; takes beef-tea, broiled steak, and two glasses of Vichy water daily, mixed with flaxseed tea.

September 29th.—No. 12 could not be passed into the bladder, and No. 10 was passed with pain and difficulty; patient was nervous and despondent, but rallied under encouragement; recommended poultices to the perineum, and half a grain of sulphate of morphia at night.

September 30th.—Looked better; wound in the perineum was suppurating; he was quite cheerful, and said he could pass a larger stream than he had been able to do for twenty years. A cotton plug, well oiled, was to be inserted by him a few times during the day into the meatus; rested well the previous night; no instruments were used.

October 1st.—Feels gloomy and despondent; he has headache; is costive; meatus painful, much swollen, and suppurating; prescribed ol. ricini f℥ ss. No instruments used.

October 2d.—Passed Nos. 9 and 10 with facility; passed No. 13, and caused some pain at the stricture, two and a half inches from the meatus; general condition excellent. Plain, nourishing food; warm hip-bath at night.

October 5th.—No instruments were used yesterday or day before; sudden change in the weather; temperature of the room uncomfortably cold. He evinced dread of the instruments; No. 11 steel sound was stopped, and tightly held at the second stricture; Nos. 9 and 8, successively inserted, were also stopped at the same contraction. His feelings were much affected, and he expressed fears of the return of his disability; he was wrapped warmly with blankets; bottles of hot water were applied to him, and a fire made in his chamber. Waiting a few minutes, I requested permission merely to insert the point of an instrument in the meatus; and diverting his attention from himself for a moment, passed at once, and with great facility, No. 13 into his bladder. He recovered from his despondency, and became much elated at this success. Recommended warm hip-bath at night, and room to be maintained at a comfortable temperature.

October 8th.—Found him sitting up; passed No. 13 without the slightest pain or difficulty, and allowed it to remain in the urethra three or four minutes. No. 14 caused considerable pain at the second stricture, which grasped it tightly; allowed it to remain in the bladder a few minutes.

October 10th.—No. 13 was seized at the second stricture; left in the bladder eight minutes; was removed, re-introduced, and left in again five minutes. Took an aperient to relieve slight costiveness, and had his bowels moved five times; said he felt better, however, and was gaining strength.

October 12th.—Passed No. 13 with perfect ease; No. 14 produced pain at the second stricture; it was removed, and No. 13 re-inserted and left in the bladder twenty-five minutes. Perineal wound healing rapidly; glycerine was smeared over it.

October 14th.—No. 13 was passed and left in the bladder fifteen minutes; No. 14 was passed, causing little pain, and left in the same length of time. Only a few drops of urine escape by the perineal wound, which is nearly healed.

October 17th.—Passed Nos. 13 and 14, and instructed him in the use of the instruments.

November 9th.—I saw him several times during the last three weeks; sometimes passed the instrument for him, and at other times observed him pass it himself. He passed before me to-day No. 15 without pain, and as he has done two or three times before with accomplished dexterity, and no longer requires my attention.

Remarks.—Metallic sounds and catheters, to be passed with the most facility into the bladder, should be curved according to certain determinate rules. These rules are to be obtained by a careful study of the anatomical relations of the curve of the healthy urethral canal in the adult male, by observing the attachments of the deep perineal fascia and other surrounding parts in their several relations to this canal. In selecting cases for observation, it is desirable that subjects disproportionately above or below the average size should not be chosen. Excessive obesity, or a too contracted pelvis—enlarged prostate—and sometimes a position of the

bo ly unfavorable to the passage of a catheter, are some of the exceptional causes which may essentially change the condition of the parts, modifying the urethral curve, and requiring the exercise of more expert manipulation, or the use of an instrument with a differently shaped curve. Instruments of the most dissimilar curves have been used by different surgeons, and equally well recommended; causing the inference that the dexterity sometimes observed in the use of instruments of extraordinary shape, is the result of long experience and patiently acquired skill, and not the peculiar shape to which the instrument is bent. If instruments having curves unusually disproportionate to the natural curve of the canal, can, by adroit manipulation, be passed into the bladder, so can also straight instruments when properly and expertly used. There are comparatively few, however, who have had the time or the opportunity to acquire the requisite skill to enable them conveniently to use sounds with such expertness that the curve of the instrument is a matter of little importance; indeed the most adroit manipulator may fail with a badly shaped instrument to accomplish what, with one of a suitable curve, a much less expert surgeon can do with facility.

The most correct rules by which metallic sounds and catheters have been shaped heretofore are due to Henry Thompson. He states that Mr. Briggs found the curve of the urethra to commence at a point an inch and a half anterior to the bulb, and end at the bladder, forming an arc of a circle three and a quarter inches in diameter; the chord of the arc being two and three-quarter inches, or a little less than the third of the circumference.* Thompson adopts this measure as the one to which sounds and catheters should conform, and very properly requires in addition that the shaft of the instrument and its point should be in lines, the intersection of which forms a right angle; recommending that the curve of the catheters be made a little longer than that of the sounds.

Such a curve is an improvement on those used anterior to its extensive adoption; but is not, as I shall endeavor to prove, entirely free from objections. Careful observation has convinced me, that shorter curves are better suited to pass the part of the canal where the anterior ligament of the deep perineal fascia often opposes an obstruction to badly curved instruments; even when there is no organic stricture, or spasmodic contraction of the canal resulting from the action of the compressor urethræ muscle. Another important objection is, that the curve of numbers one and seventeen metallic instruments would have the same length; it is very essential that they should not; instrument-makers do not give these numbers, or the intermediate ones, the same curve, guiding themselves by no definite rule, however; so that the curve of a urethral instrument is frequently a matter of fancy with the instrument-maker, and the result of a vague, ill-defined conception on the part of the surgeon, based on a certain manipulative skill acquired by experience. The urethral canal, in passing beneath the pubic arch, forms a curve, the lowest part of which corresponds to a point at which the canal perforates the anterior layer of the deep perineal fascia, and is immovably fixed by this ligament. This point Thompson has found to be distant from the pubic symphysis seven-eighths of an inch to one and one-eighth inches; this variation does not exceed the quarter of an inch, and explains why the course of the urethral curve can vary so little. He supposes an instrument in moving to the bladder to turn about an axis which is placed about the centre of the symphysis pubis. Take this as a centre, and describe a circle with a radius the half of three and one-quarter inches, and it will not pass within the canal at the point of the perforation by it of the anterior layer of the deep fascia. Describe a circle with a radius of seven-eighths of an inch to one and one-eighth inches, making the centre of the circle at the middle point of the sub-pubic arch, and a catheter having the curve of such a circle, in its transit to the bladder, will with more probability, and without the necessity of depressing or elevating its point, enter and pass the circular aperture of the anterior layer of the deep fascia. There is no reason to select the centre of the symphysis pubis as an axis about which an instrument is supposed to turn in its course to the bladder. But, more properly, we may suppose a catheter to turn about an axis located at the middle of the sub-pubic arch, and describing a curve the part of a circle with a radius shorter than the circle of which Thompson's curve forms a part. Suppose, also, one of the points of this circle to lie in the urethral canal, where it perforates the anterior layer of the deep perineal fascia, and at which part, as has been previously stated, the canal is immovably fixed: the centre of the circle corresponding to the middle of the sub-pubic arch or the point at which we have located the axis. Fig. 1* explains the principle upon which I conceive

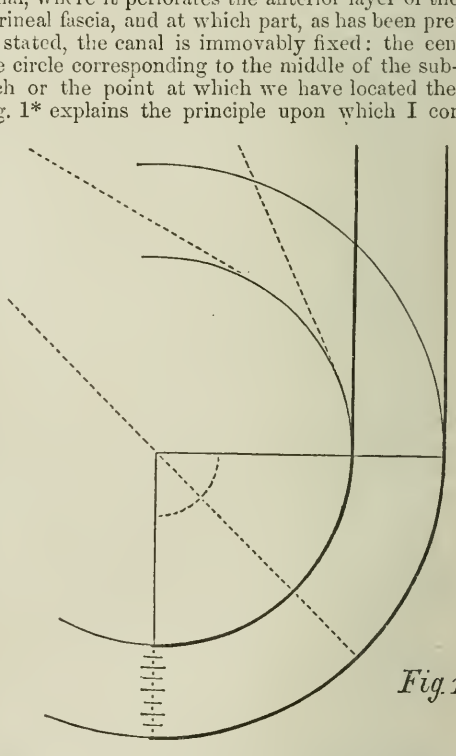

Fig. 1.

metallic sounds and catheters should be made. The inner curved line represents a number one sound or catheter, which, measured from the concavity, corresponds to a circle with a radius of one inch, and the arc of the circle or the length of the curve is measured by an angle of ninety degrees. The outer curved line represents a number sixteen sound; its length of curve is measured also by an angle of ninety degrees, and forms the part of a circle, the radius of which is an inch and a half. The intermediate space is divided by short lines and dots into fifteen equal spaces, which show the graduated increase of the instruments of intermediate numbers.

In dilating strictures I prefer, as most surgeons, to commence with flexible instruments when it is neces-

* *Loc. cit.*, p. 44.

* The figure in being drawn on the block should have been reversed.

sary to use numbers below No. 6—the smaller sized flexible silver catheters, which are often very useful, should be flexed to correspond to the above curves.

On the recommendation of a friend distinguished as a surgeon, I was induced to try gutta percha bougies, which have been very generally considered as dangerous instruments to be used in the urethra. Only recently mention has been made in the November number of the London *Lancet* of the operation of lithotomy performed by Fergusson to extract a piece of bougie of this material which had broken and escaped into the bladder. The objections to the use of these bougies are in consequence of accidents and other causes, which result from not taking the necessary precautions, which, if always carefully observed, would render gutta percha bougies safe and efficient instruments in the dilatation of stricture. They should be made of good, compact, and tough sheet gutta percha; a piece large enough to make a single bougie is put in boiling or very hot water, left a minute or two, taken out, rapidly rolled between two perfectly smooth boards, shaped to the size and form desired, and then left to cool. A bougie prepared in this manner, of tenacious gutta percha, or such as has not lost its cohesive properties, is so tough and pliant, that it cannot possibly be broken, but may be tied in knots, or otherwise twisted. If it is put aside, after a few weeks or months it loses its cohesive properties, and becomes not only worthless, but a very dangerous instrument, and boiling water does not sufficiently restore its original tenacity and cohesiveness to render its use safe. It would be well for the surgeon to make them himself as previously described, each time they are required, of good unused sheet gutta percha.

The insufficiency in many cases of dilatation alone, to effect the cure of old and resilient strictures, led to the adoption of means for their division with cutting instruments. These means differ, as necessity requires either the internal or external division of the stricture. For the first, many kinds of urethrotomes have been devised, the relative usefulness of which I shall not attempt to discuss; those having a conductor are the most safe and efficient.

Messrs. Tiemann & Co. have recently made, agreeably to my instructions, an urethrotome furnished with a conductor like that of Henry Thompson's instrument, but essentially dissimilar in other respects. The advantages of this instrument will be apparent upon inspection of the accompanying wood-cut, Fig. 2. At A, is represented, reduced to half size, the instrument complete. A German silver catheter between a No. 1 and a No. 2, properly curved, and grooved to within an inch of the commencement of the curve, serves as a guide for the urethrotome, which consists of a cylinder the size of a No. 4 catheter. At one end of this instrument is a sheath, the shape of an iso-celes triangle with a very long base and a rounded apex. This sheath contains a blade which is of the same shape, but smaller, and with convex edges; it is continuous with a rod which moves the blade forward and backward, as represented respectively at B and C in the figure. At the other end, and on one side of the urethrotome, is seen a small longitudinal slit in which moves a little knob attached to the rod, to limit the projection of the blade sufficiently to effect the section of a stricture and facilitate the ready passage of the sheath. A screw above the slit serves to secure the blade when sheathed or opened. On the entire length of the under surface of the cylinder is a rectangular ridge, narrowed at the line of its union with the cylinder so as to permit it to slide with facility, and be maintained securely in the groove of the catheter. The catheter being passed into the bladder, this urethrotome can with facility and without danger be used to incise thoroughly any stricture which may require internal division.

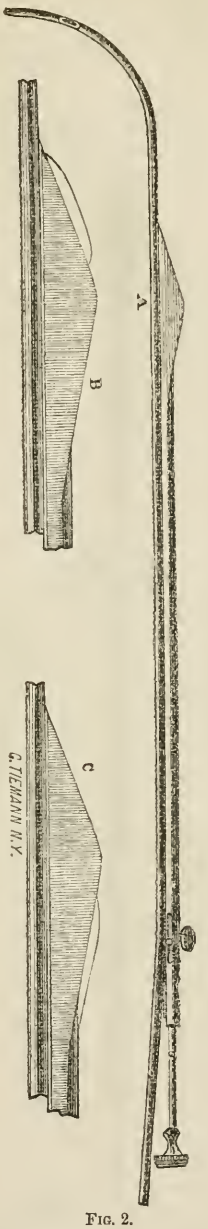

Fig. 2.

In the section of stricture from the perineum by external incision, the induration of the adjacent parts, and the extreme density and resistance of the cylindrical mass of inodular tissue which forms the stricture, cause difficulty in recognising by the sense of touch the presence of a fine staff.

Several weeks ago conversing with Dr. Bozeman, of this city, who was present at the operation previously related, and having alluded to a staff which Messrs. Tiemann & Co. had made for me, he mentioned Dr. Nathan R. Smith's instrument for lithotomy,* of which I had no knowledge, and suggested

* See Medical and Surgical Memoirs: Baltimore, 1831.

that an instrument on the same principle might be made for the external division of stricture near the bulb. Aided by the intelligent coöperation of Mr. Stohlmann, of the firm of Tiemann & Co., I caused, after two or three modifications, an instrument to be made, which essentially simplifies the operation of perineal urethrotomy.

At A and C, Fig. 3, are seen the points at which the attachment is secured; the joint at A permits, when the screw at B is tightened, the bistoury-shaped blade, terminating the free extremity of the attachment, to

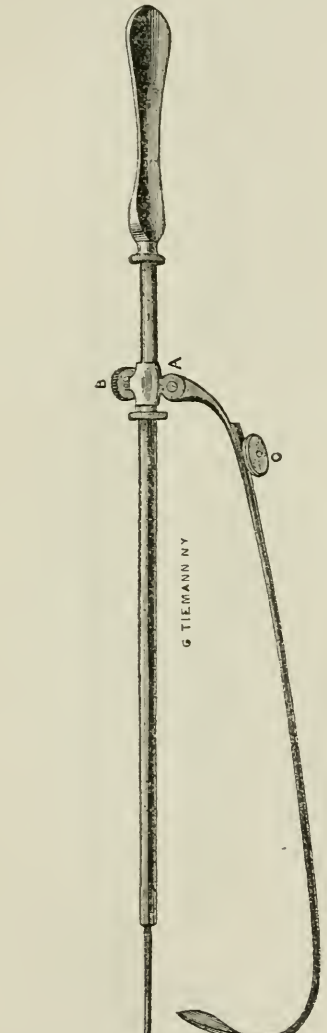

Fig. 3.

enter with mathematical precision the groove of the staff. By loosening the screw at C the attachment can be removed, and the staff used without it, if desired. If, after the preliminary section of the skin and cellular tissue of the perineum and scrotum, in the operation for perineal urethrotomy with this staff, the fine groove of this instrument cannot be readily felt through the indurated tissues about the stricture, the attachment can be promptly adjusted by an aid, and the operation completed with greater facility. Between A and B is a slide which permits the movement of the blade from backward, forward a distance corresponding to that between the handle and the shaft.

Original Lectures.

A LECTURE ON UNAVOIDABLE PUERPERAL HÆMORRHAGE,

OR PLACENTA PRÆVIA,

Delivered Jan. 1866, in the College of Physicians and Surgeons, New York.

By T. GAILLARD THOMAS, M.D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Concluded from page 472.

Natural History of Placenta Prævia.—The course of cases of this complication left to nature and entirely uninterfered with by art, varies somewhat. As a general rule the hæmorrhage continues until the woman, exsanguinated and exhausted, falls a victim to the unchecked drain before the delivery has been accomplished. Indeed, in a grave case, unless one of five propitious occurrences should interpose, there would be no reasonable ground for hoping that the life of either mother or child would be preserved. The occurrence of one or more of them, however, sometimes averts the unhappy issue; and, in spite of the unfavorable circumstances, saves the lives of both. Let us investigate the means by which nature, unaided, sometimes accomplishes what art so often fails to do:

1. The presenting part of the child may be so forcibly driven against the bleeding surface that its vessels are mechanically closed, and the labor allowed to continue without further loss.

2. In complete implantation the attachment to one wall is torn off, and hæmorrhage ceases by pressure from child.

3. That part of the placenta attached nearest the cervix is gradually detached, while that adhering to the body above is left in place. The vessels of the placenta become plugged by coagula, while those of the uterus are closed by contraction of its fibres, and hence the flooding ceases; and as no further placental detachment is requisite, the labor progresses without danger.

4. The labor may be so rapid that, in spite of the hæmorrhage which accompanies it, a safe delivery for both mother and child is accomplished.

5. The entire placenta may, by the violent efforts of the uterus, be detached and cast out of the vagina, when, as experience has taught us, the flow will generally cease entirely.

The mode of action of three of these processes in effecting the desired end is so evident that they will need no explanation. That of the third and fifth, however, involves a few words upon the nature of the hæmorrhage in placenta prævia. In a previous lecture, I mentioned that a great deal of discussion had occurred in reference to the surface, the vessels of which furnish the blood which is lost in ante-partum hæmorrhage. Some maintain that it escapes from the vessels on the face of the placenta, those on the uterine face being closed by muscular contraction; while others, constituting the majority, support the view that very little has this source, and that the great mass comes from the uterine

vessels, before contraction of that organ has effected their closure.

It would here be out of place for me to enter into this discussion, and I will merely state that my own conviction is that from both surfaces, uterine and placental, flooding occurs; but that by far the most obstinate and dangerous loss arises from the former.

When the placenta is placed over or near the cervix, the first uterine effort detaches a portion, generally of inconsiderable size, and instantly a gush takes place from the severed vessels of the uterus and placenta. So soon, however, as a firm tonic contraction has occurred in the uterine fibres, the vessels of that organ are ligated by them; a slight flow from the spongy placenta still continues, but, as is clearly shown by examination of that organ after expulsion, clots soon form in the vascular mass, and check the discharge. The next contraction, however, separates still more; another set of vessels are broken across, and another gush takes place. This, like the preceding one, soon ceases, to be again excited by another uterine effort, until at last the birth is accomplished; or, as is more likely, the patient, if unaided, dies exsanguined and exhausted. So long as the placenta remains in part attached over or near to the cervix, these successive separations and consequent hæmorrhages will occur, and nature is possessed of no means for obviating the continuance of this dangerous condition—she either separates that portion of the placenta attached nearest the cervix, leaving that above still adherent, or by a powerful effort throws the entire placenta from its place, and casts it loose into the uterus or vagina. The second of the means by which she exerts her vis medicatrix has long been known; the recognition and enunciation of the first, in 1844, is due to Dr. Barnes, of London.

Such are the means by which nature may conduct these distressing cases to a happy issue; but these are all; and should not one of them be spontaneously brought to her aid, the death of the mother and her child would soon occur, unless she were succored by art.

Prophylaxis.—The cervical implantation of a placenta produces no evil effects until about three or four weeks before labor. Then hæmorrhage occurs, which during the last month of pregnancy often depreciates the strength of the patient to such an extent, that she falls an easy prey to the profuse flow, and great exhaustion dependent upon delivery.

If, as soon as the existence of the condition were discovered, say, for example, at the end of the eighth month, the woman could be delivered, the following would be the advantages gained.

1. We should be dealing with a woman not exhausted by repeated hæmorrhages.

2. The obstetrician would be in attendance in the commencement of hæmorrhage, should it occur.

3. The os may be dilated by hydrostatic pressure, which may entirely prevent hæmorrhage.

4. We diminish the risk of sudden fatal flow from rupture of large placental vessels.

The dangers of induced labor at the eighth month we know to be small for both mother and child; and looking at statistics and seeing the dangers of delay to the full term, I am most decidedly in favor of premature delivery in cases presenting grave features. Of course, before it is to be thought of, the diagnosis of the case must be certain, and the gravity of its character fully proved.

Indications for Treatment.—Let us, at this point, briefly examine some of the data of our subject. It is necessary that a bulky body should pass through a gateway, the opening of which is as necessarily accompanied by danger; what are the means by which the passage may be safely accomplished? I know of but two: first, to hasten the passing body through as rapidly as possible, so as to curtail the duration of the dangerous agency; and second, to remove the element of danger, or quell its activity, so that the gateway may be slowly and safely opened. This is a homely illustration; but, on that very account, will answer my purpose. Applying it directly to our subject, you will readily agree that the indications are—

1st. To alter the state of affairs at the cervix, so that gradual dilatation may go on without producing hæmorrhage.

2d. To deliver the child as soon as possible, and thus prevent the necessity for *gradual* dilatation of the os and cervix.

On these two principles depend all the methods by which nature rescues the patient from impending death; on these two precepts depend all the reliable methods of treatment ever devised for her assistance by art. In treatment we only imitate nature by developing one or more of the principles which she has pointed out to us.

The speedy delivery which the great vigor of the uterus sometimes accomplishes, we effect by version, the forceps, or ergot; closure of the bleeding vessels by direct pressure, we produce by artificial evacuation of the liquor amnii or pressure by a bag of gutta-percha filled with water; and partial or complete separation of the placenta we imitate by three methods, which I will now proceed to mention.

The first is that advised by Dr. Barnes, who, in 1857, recommended the practice of separating, by the finger, only that part of the placenta attached near the cervix, and leaving that attached above this point still adherent. All that separation which must necessarily occur to admit of the passage of the child, is thus accomplished at once. Succeeding uterine efforts do not affect that portion attached to the body, and tonic contraction of the uterine fibres closing the open vessels of the uterus, while coagula do the same for those of the placenta, the labor may proceed without further loss or assistance.

Dr. Barnes supports this practice by abundant clinical facts, and although my own experience with it is limited, I do not hesitate to recommend it to you as a means in every way calculated to prove highly advantageous and preservative to life.

The second method consists in the entire detachment of the placenta before the birth of the child. This practice was recommended, according to Dr. Tyler Smith, first, by Dr. Chapman of Ampthill, subsequently by Kinderhood and Radford of Manchester, and lastly, falling into the able hands of Sir James Simpson, of Edinburgh, has been rendered a well recognised and most useful aid in contending with these cases. One objection to it, of course, is, that it almost entirely destroys the child's chances for life; but unfortunately, in many of these cases, so grave are their consequences that this is a matter of secondary consideration.

The third method, that of Cohen, consists in detaching the placenta from one wall of the uterus, and thus changing a complete into a partial case.

MEANS FOR ACCOMPLISHING INDICATIONS.

The charts which I display will put this part of our subject clearly before you at a glance:

Methods at our command for preventing hæmorrhage while the os dilates.	1. Filling the Cervix with Barnes's Dilators. 2. Evacuation of Liquor Amnii. 3. Partial separation of Placenta by Barnes's method. 4. " " " " " Cohen's " 5. Complete " " " " Simpson's " 6. The Tampon.
Methods at our command for urging the child rapidly through the point of danger,	1. Version. 2. Forceps. 3. Ergot.

It is astonishing to note how a very simple invention will sometimes revolutionize principles and practice sanctioned by years of experience. Some years ago, Dr. Barnes introduced into practice the use of fiddle-shaped gutta-percha bags for dilating the cervix to bring on premature delivery. These little bags are, I believe, in time to supersede all other methods in the treatment of placenta prævia, and become the means of saving thousands of lives, which, in spite of all former methods, would have been lost. They combine two immense advantages—that of actively dilating the cervix, and that of checking hæmorrhage while such dilatation is progressing.

To illustrate the treatment, let me suppose that you are called early to a case in which labor and hæmorrhage have commenced simultaneously.

You should first ascertain whether the implantation be complete or partial. If it be complete, at once practise Cohen's method; for as the labor progresses, separation of the placenta from one wall of the uterus must take place sooner or later, and it is better to perform in a moment what it might occupy the uterus hours to effect. Should it be partial, pass one finger into the os and separate that portion which is within reach without introducing the hand.

Then introduce the smallest of Barnes's dilators, fill it with water, and wait. It will check the flow either by pressure on the placenta or as a tampon. In half an hour, or an hour, the woman not being exhausted, the second-sized dilator may be employed, and in the same time after this the third.

This will fully dilate the cervix, and if uterine contractions are vigorous, the dilator may now be removed. If they are feeble, it should be retained until they become strong, or until they are excited by the introduction of an elastic catheter between the membranes and uterus as high as the fundus.

Upon their development and the removal of the dilator, the membranes should be ruptured, in order that the presenting part may press upon the bleeding points, as the dilator did, and close the open vessels.

The greatest danger from Placenta Prævia is now past, and if the labor is rapid, or can be made so by artificial means, both mother and child will soon be in comparative safety as the head passes into and through the os.

And now all the features of the case are altered. For nature, unassisted, to arrive at this point, full cervical dilatation—a profuse flow of blood is inevitable, "unavoidable." By a simple mechanical contrivance, art has produced the state required, preventing meantime the resulting evil. Should the presenting part advance, all will now be well. Should it not do so, we may urge it on by uterine catheterization or ergot, or we may proceed to the accomplishment of the same indication, by Version or the Forceps.

But in some cases the obstetrician is called, when, although there are no uterine efforts, the patient is so utterly exhausted by hæmorrhage that he dares not resort to version from fear of collapse as its consequence, and in which he cannot check the flood with sufficient rapidity by the dilators. Then it is that Simpson's method, that of entire removal of the placenta, fills a most important place, and gives the happiest results. Experience proves that after detachment and delivery of the placenta, hæmorrhage generally ceases, and thus time is afforded for the vital forces to rally under the influence of sleep, food, freedom from mental anxiety, and the use of stimulants before active labor comes on.

In certain cases you will have to decide between complete separation of the placenta and version. These are the circumstances which should determine your choice:

Version is preferable	*Separation of Placenta is preferable*
When the child is living.	When the child is dead.
At full time.	Before full term.
When patient's strength is good.	When patient is exhausted.
When the soft parts are dilatable.	When the soft parts are rigid.
When pelvis is not deformed.	When pelvis is deformed.
In multiparæ.	In primiparæ.
	During epidemic of puerperal fever.

It has been objected to separation of the placenta in cases where the soft parts are rigid, that if the hand can be introduced for that procedure, version would be practicable. This is not, I think, without reason; but in certain cases the fingers will be sufficient to detach it, and even if it required the whole hand, it would be much less dangerous to stretch a doubtful os for its admission to the wrist, than for the introduction of the entire forearm, and subsequent extraction of the child.

There are few points to be decided in the practice of obstetrics which call for a greater amount of judgment in their decision than the period at which version should be performed in placenta prævia, and there can be no question as to the fact that its decision will often determine the fate of the patient. If, on the one hand, it is performed too soon, a laceration of the unyielding os may take place, and the woman be exposed to the great risks of post-partum loss from the immensely developed vessels at the placental site, as well as to the imminent ones of phlebitis. On the other, if too long delayed, her forces will become so exhausted that the shock of the operation will produce death. The obstetrician must keep these two dangers ever before his mind in solving this delicate problem, the importance of which may be estimated from a statement of Dr. Simpson, that nearly the same proportion of women appears to perish from one as from the other set of troubles.

And while upon this subject it will be well for me to guard you against a very prevalent error that, whenever version is called for by the loss of blood attending placenta prævia, this loss will itself render the parts yielding and dilatable—an error which has received the sanction of no less a name than that of Francis Denman. For that very reason it should be refuted; and to do this I will merely refer you to the positive assertions of Drs. Davis, Hamilton, Simpson, Ramsbotham, and Lee; and to show you how important the fact of the danger of forcing a rigid os, even when death is at hand, has been deemed by some of our most reliable guides in practice, I will read from Drs. Peu and Collins. The first remarks, that "to force and dilate the internal os is just so many deaths produced;" and the second, "I know of no circumstance so much to be dreaded as the forcible introduction of the hand where the parts are in a rigid or unyielding state." All this applies especially to primiparous women, in whom the parts are always more rigid and liable to laceration than in multiparæ.

In the treatment of placenta prævia the tampon has fulfilled a most useful part; but if the obstetrician possess (as every obstetrician should) Barnes's dilators, and knows their powers, it will be numbered with the resources of the past. It is far surpassed by the dilators, and should be employed only when they cannot be obtained or introduced.

Before concluding, let me present at a glance the following propositions, as a recapitulation of the plan of treatment:

1. Should grave symptoms of placenta prævia come on at the end of the eighth or beginning of the ninth month, take into consideration the propriety of premature delivery.

2. Should the case be seen at the commencement of

labor, practise Cohen's method of detachment, if implantation be "complete;" Barnes's method, if it be "partial," and then introduce a dilator.

3. Having dilated the os, rupture the bag; and, if necessary, excite contractions by catheterization or ergot before removal of the dilator.

4. Should hæmorrhage now be profuse, do not delay, but deliver at once by version or forceps.*

5. Should the os be dilated or dilatable, and the woman exhausted, spend no time in experimenting with the dilators, and do not expose her to the dangers of an operation, but remove the entire placenta, and rally her strength by food, stimulants, opium, and sleep.

6. Should the dilators not be at hand, use the tampon or colpeurynter in their stead.

LECTURES ON PUERPERAL CONVULSIONS

Delivered in Chicago Medical College,

By W. H. BYFORD, A.M., M.D.,

prof. of obstetrics, etc.

Lecture I.

Gentlemen—Pressure of the gravid uterus within the abdomen seems to be the originating cause of this kind of convulsions, for although there may be cases of uræmic convulsions arising to some extent in the same state of the blood and nervous system as in Bright's disease, and perhaps others, the chain of pathological changes originates as the effect of some other causes; while in the pregnant condition they are so unfrequently operative as scarcely to be worth serious consideration.

As the uterus increases in size within the pelvis, it presses upon the rectum and bladder, especially the first, preventing the free and easy evacuation of the fæces, thus giving rise to such a loaded state of the alimentary canal as to cause it to occupy a larger space in the abdomen than usual. This pressure upon the rectum is what perhaps causes the general gaseous distension of the abdomen in the first few weeks of pregnancy. As it rises higher and occupies more room, the veins passing through and along the brim of the pelvis are pressed upon so that the labia, perineum, and lower extremities, become unusually filled with venous blood; and after pregnancy is further advanced, this stagnation goes so far that serum is pressed out of the capillary extremities of the veins into the areolar tissue, causing œdematous tumefaction of the parts. The legs and labia swell quite large in many cases. The veins themselves become greatly distended, their calibre is increased, and sometimes their walls give way, large varices are found, and in rare instances rupture takes place. The blood thus long detained and so slowly returned into the general circulation must undergo excessive venusation. The venous changes in the blood must be excessive compared to what they would be if that fluid flowed with its wonted rapidity, and probably deteriorated in quality by the detention, either destroying or impairing some of its ordinary elements, or impregnating it with deleterious materials.

Increasing still more in size, the uterus comes to press upon the iliac and aortic arteries, preventing the blood from reaching the lower extremities in the usual quantities, and by the backward pressure thus made upon the column of blood causes more of it to be sent to the upper part of the body and head. This upward distribution of the blood is augmented by the pressure exerted upon the small arteries and capillaries in the abdomen, excluding it to a considerable degree from this cavity when distension becomes great. From these two conditions arises a true hyperæmia of the head, and consequent increased general excitability. Whether the spinal cord partakes of this state, I am not aware, but it most likely does. The diaphragm is pushed up further into the chest than usual, the cavity of the thorax is thus very materially diminished, and consequently contains less blood than ordinary. After looking at these effects of pressure upon the systemic and preliminary circulation, no one can be surprised at the hyperæmic excitability so frequently observed in the last weeks of pregnancy. But pressure upon the abdominal organs not only causes unequal distribution of the blood, but deteriorates its composition. The excretory and secretory capacity of the organs is impaired. The mucous crypts and intestinal glands do not produce their full supply of secretion, nor is the watery exudation from the mucous membrane as great as usual; the fæces become dry as a consequence, and pressure upon the sigmoid flexure of the colon and the rectum adds all that is necessary to bring about constipation more or less obstinate. The liver and pancreas are doubtless likewise prevented in the same way from pouring their stimulating fluids into the alimentary canal as plentifully as common.

Another and perhaps more deleterious concatenation of circumstances begins in the pressure upon the emulgent veins and substance of the kidneys. Pressure upon the emulgent veins retards the return of blood from the kidneys to the general circulation, the capillaries are over-distended with blood until some of the serum of that fluid transudes their sides and appears in the urine, and when the urine is properly tested the albumen thus effused is detected in it. *This exudation* is in itself a matter of minor importance, otherwise than as an indication and evidence of embarrassment in the excretory function of the kidneys. The passive or venous hyperæmia which exists when albumen is discoverable in the urine, is sufficient to prevent the excretion of urea. *Generally*, therefore, the urine that contains albumen in considerable quantities is deficient in urea. The azotic elements of this excretion are retained in the blood, and may be detected by chemical reagents, according to some observers, in the form of carb. of ammonia. We are, I think, yet hardly warranted, however, in deciding the precise form they assume after failing to find their way out of the blood, but ample observation attests their deleterious effects upon the nervous centres, both animal and vital. The palpitation of the heart and susceptibility of the stomach to irritant influences, show how the great sympathetic plexuses are affected by it; while the abnormal sensations and movements, the neuralgic pains, convulsions, etc., demonstrate the deleterious action exerted upon the brain and spinal cord. Although convulsions occur in all kinds of patients suffering from albuminuria, yet their frequency and urgency are beyond all comparison greater in the puerperal patients. This, no doubt, arises from the fact that in ordinary Bright's disease, the albuminuria of children in eruptive diseases, etc., etc., there is not that hyperæmic state of the nervous centres caused by pressure upon the large arteries, and abdominal and thoracic organs, that there is in puerperal women. The coincidence of uræmia and cerebral hyperæmia constitutes the peculiarity of the latter class of patients, both exalting the excitability of the nervous centres; the hyperæmia furnishing an unusually high nutrition to the nerve cells, thereby making the changes in them more easy and rapid, the uræmia by a direct stimulating in-

* The forceps rarely come into action in placenta prævia, although in some cases they may be employed.

fluence upon them by contact. This conjectural explanation may not be correct; the main facts nevertheless of cerebral hyperæmia, uræmia, and puerperal convulsions, probably, almost if not quite always, go together.

This is too short a sketch of the effects of pressure of the gravid uterus to contain everything relating to it. The remarks are intended more as suggestive than as full explanations. I cannot forbear, however, in this connexion, from alluding to the theory of anæmia as contrasted with the plethora of pregnancy. I think the weight of authority is in favor of the idea that *most* women—certainly not all—are somewhat anæmic by pregnancy. Considering the great pressure upon the abdominal organs, how it would prevent perfect chylification and lacteal absorption, we at least have something of an explanation of the manner of its occurrence. It should be borne in mind, in connexion with the above explanation of the predisposing conditions—for they are usually only predisposing circumstances, many patients having them all without being convulsed—that the pressure is effective in the production of them only in patients whose abdominal muscles are rigid and comparatively unyielding, not permitting the uterus to distend them much, but keeping it pressed tightly against the posterior wall of the abdomen. The large vessels are thus pressed against the spinal column. Primiparæ present this state of the abdominal muscles more frequently than any other kinds of patients, and the older the primipara, generally the more rigid the muscles are. And we find that convulsions occur much more frequently—eighty per cent. of the cases—in patients pregnant with the first child. The pressure of the uterus in the abdomen is greatest during pregnancy about the end of the eighth month, and fore part of the ninth. I have seen more cases of convulsions about this time than any other. It will be recollected, that during the ninth month the organ settles down lower into the pelvis, presses more upon the veins of the lower extremities, and less upon the great arteries and abdominal organs. The convulsions may take place as early as the sixth month. I knew one fatal case at this period of pregnancy. They frequently occur during labor, and after it less often. The condition above may be present in sufficient intensity to cause convulsions, though I think there is almost always present some exciting cause proper. They may be regarded as predisposing in their effects usually, and speaking in the language of Marshall Hall, we may call them centric, because they affect the nervous centres directly. Most other causes are excentric, and affect the nervous centres indirectly, and excite them to the production of convulsive movements in the muscles. Perhaps the most common of these last is labor, the pains of which, operating in a reflex manner upon the brain and spinal nervous centres wrought up to an unusual susceptibility by the hyperæmia and uræmia, caused by uterine pressure, are sufficient to induce convulsions. Gastric, intestinal, and cervical irritation have a similar influence. In the same way the pressure of the fœtal head upon the cervix uteri, vaginal walls, sacral plexus of nerves, perineum, external organs, etc., etc. Any circumstance that causes unusual pain or local nervous excitement may, by reflex effects upon the spinal centres corresponding to the affected locality, set up a chain of phenomena that will result in a convulsive paroxysm. The emotions or passions, fright, the effect of bright light, loud noises, all these, and many others, are not unfrequently sufficient exciting causes. I think that but very few persons are so susceptible by reason of the delicacy or susceptibility of their natural organization as to be thrown into convulsions by any of the causes here enumerated as exciting, and believe they must be preceded by some such morbific influence as very much exalts the irritability of the general organism. I cannot, therefore, subscribe to the doctrine of the sufficiency of these reflex causes alone.

There can hardly be said to be any distinctive morbid anatomy of puerperal convulsions. The fatal conditions are often evanescent or inscrutable. In some instances there is much cerebral congestion, and *very rarely* sanguineous extravasation in the brain. More frequently there is serous effusion between the membranes or in the sinuses. Still more commonly is œdema of the areolar or interstitial tissue of the brain observed. The lungs are pretty constantly filled with œdematous appearances, and the air-cells and small bronchi gorged with tough mucus; sometimes great sanguineous congestion colors their structure extensively, while there is sometimes subserous emphysema. Probably as often as any other way the lungs and brain betray no evidence of violent action within them. I think it ought to be well understood, that these anatomical changes are the effects and not the causes of the convulsions. They are doubtless the causes of death in very many, if not all the cases in which they are observed, but I know of no well informed pathologist of the present day who believes them to be primary links in the chain of morbid states in the body. As I shall have occasion to explain hereafter, the convulsive paroxysms overwhelm these vital organs, by projecting the blood into them with great force and preventing its return from them through the veins.

The kidneys are more constantly and obviously affected, perhaps, than any other organ, and yet sometimes where uræmia has been an indubitable fact, they exhibit scarcely if any appearance of disease. Ordinarily they are merely injected with an unusual amount of blood, the venous capillaries are more distended, and the cortical substance mottled less frequently than is serous, fibrinous, or even sanguineous effusion in the areolar tissue. It is not often the case that actual degeneration takes place; very generally there is nothing more than vascular turgescence, which readily passes off when recovery takes place, and disappears as an effect of the post-mortem distribution of the blood. The uriniferous tubules sometimes contain albuminous casts and clots.

Paris Faculty of Medicine.—This body is likely soon, it is said, to undergo considerable change in its *personnel*, as no less than six Professors are incapacitated by age or illness, not to mention M. Trousseau's untimely death previously noticed. The chair of Clinical Surgery, lately filled by M. Jobert de Lamballe, the celebrated surgeon of the Hotel Dieu, and favorite of the Emperor, now hopelessly insane, is, it is said, to be immediately filled up. M. Andral and M. Piorry have resigned—the former in consequence of failing health. M. Cazenave, Physician to the Hospital St. Louis, owing to a disagreement with the Governors of the Assistance Publique, has likewise tendered his resignation.

London Sewage.—The experiments on the lower banks of the Thames, to test the productive powers of the London sewage when applied to sea sand, have thus far been attended with remarkable success.

Charity Hospital Appointments.—The following have been appointed Visiting Physicians to the Charity Hospital: Drs. C. A. Budd, F. A. Burrall, J. B. Done, W. D. Eager, H. S. Hewitt, W. T. Nealis, W. H. Thomson, and Robert Watts, Jr.

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, M.D., EDITOR.

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MEDICAL CERTIFICATES

WE are all willing to acknowledge that the true value of any certificate is in proportion to the responsibility of the party granting it; especially when such a document contains the expression of an opinion. Medical certificates are, from their very nature and import, to be ranked with this class, and hence partake of an importance which cannot be questioned. They emanate from a class of men who are supposed to be well qualified, and whose judgment should command the highest degree of respect. But when we hear it so often, and with no small show of truth, asserted that these certificates are generally worthless affairs, what is the reflection which is cast upon us? Certainly not such as we have any great reason to be proud of!

The want of value in our certificates cannot be explained in general terms, by the assumption that we are destitute either of judgment in medical matters, or of capacity to express our views, but is due to gross carelessness and want of fore-thought. The physician who signs a paper as a professional gentleman, and who expresses in it a professional opinion, does not as a rule appreciate the full weight of responsibility which he shoulders himself with. Not only is he to do credit to himself as an individual and a physician, but as a unit of a great and influential body. If he were as careful in the use of his name, to such a certificate, as he would be upon a bank check, much mischief would be prevented, and much that is now said concerning the cheapness of these testimonials would be unnecessary and wholly uncalled for.

The physician is so often called upon for a certificate upon this and that point that he is very apt to become a little too indifferent to the responsibilities which belong to the conscientious performance of his duty; in a word, he soon begins to look upon the signing of his name to any paper that may be presented to him, as a very trivial affair. It is natural to suppose that this habit grows upon him, and hence we find that the more prominent his position and the more his name may be in demand, the more likely is he to become indifferent to his course. To a less degree this is getting to be so with almost every physician, and we apprehend that there is hardly one of us who has not some time or other regretted the too hasty endorsement of some measure or scheme which could have been prevented by the exercise of timely reflection. A rather striking example of this want of care was afforded us some years ago, when two documents, supporting the respective claims of two different persons for the discovery of anæsthesia, were extensively circulated in our large cities for the signatures of medical men, and the names of some of our most prominent physicians were found on both. This, it is true, was an extreme instance of thoughtlessness, and would, we think, hardly occur again within the next half century; but any mistake short of it might, considering the reckless manner in which signatures are at present granted, be easily conceived.

Some physicians are ever ready to sign their names to everything in the shape of a piece of paper that may come up. Many do it doubtless for the sake of making themselves believe that their signatures are worth something; while, with shame be it said, others have in mind the possibility of having themselves quoted in some extensively circulated pamphlet. This latter affords a very reasonable explanation for the number of professional recommendations we see appended to almost every article of manufacture, where the opinion of any one can be of avail to the enterprising tradesman. The practice of endorsing outside matters, concerns which are outside of anything strictly professional, is carried on to an extent refreshing to contemplate; and the names of some medical men are in consequence fast getting to be such cheap commodities, that they will by and by be quoted much below even their market value.

A physician, as an ordinary respectable citizen, is not hindered from recommending, as such, the last improvement in the sewing-machine, the best patent broom, the most useful baby-jumper, or the most desirable washing apparatus to have in one's family; but when he presumes to crowd into that recommendation a professional opinion, and allows his medical titles to be used to give it strength—we will not say that he uses them himself—his intentions are transparent enough to need no special comment. As far as aid to the manufacture of any particular article is concerned, the maker has a right to get all the recommendations he pleases, and if he succeeds in obtaining a professional opinion he of course is glad to use it. He knows full well that whatever harm may come to the physician's reputation, and the public's estimation of that individual's self-respect, at least the sewing-machine or the baby-jumper will not have its sale particularly damaged thereby. And this is about all the value that he dares place upon the volunteered recommendation of the M.D. If the speculators were lucky enough to get the names of those whose opi-

nions were valuable, and concerning whom there could be no suspicion that a special advertisement was sought, it would be quite a different affair. But these, fortunately for the honor of our profession, are not obtained with sufficient ease to suit such general purposes, and the smaller men appropriate to themselves all the mistaken honor of having their names blazoned in thousands of circulars. But we are speaking more particularly of the carelessness of physicians in writing medical certificates, and if we discuss the prolific topic of "advertising doctors," we shall stray too far from our starting-point.

The great harm which is done to professional honor by this very matter of certificate writing is immense, and the community will by and by lose all faith in us, if we do not educate them to better conceptions. The physicians in civil practice during the late war received a very pointed hint that something more was required of them than a simple written assurance that a furloughed soldier was not in a fit condition to travel, and that was an *oath* to that effect! To any one who, being in the army, had the responsibility of extending furloughs, the reason for this regulation soon became obvious. A physician's certificate was at first considered all-sufficient, but when it was discovered that very many of these were signed *without an examination being made of the patient*, the authorities could hardly be blamed for the requirement, mortifying as it was to the profession, of an oath to stamp the document with authenticity and reliability.

But careless medical certificate writing is a subject which should interest us not only in our relations to the community, but to each other. It is becoming the fashion with some to write all sorts of certificates for medical men, medical students, nurses, and others, which have become conventionally meaningless. We will not instance in this connexion the business of signing diplomas, which every spring occupies so much of the time of our medical teachers; but there are other matters, which although not so important, should receive attention. The good-nature of a great many men forbids them to deny a favor when it can be performed with the little trouble of writing a recommendation. Who does not know of some such who never refuse a "strong letter," and whose signatures are relatively worth nothing? As far as the recommendation goes neither the giver nor the receiver is at all benefited. We can, however, hardly hope to arrest the practice of indiscriminate endorsement, unless we have a general understanding as to what shall constitute a really reliable "strong letter." A certain politician who, as far as recommendations were concerned, was in precisely the same predicament as some of our own brethren, adopted the following plan, which it is said worked admirably: being a fine penman, he was accustomed to flourish a spread eagle under his signature, and he had it generally understood among those to whom parties had to be sent for favors, that when the eagle's head was under one of his wings there commendation meant nothing. If doctors were as a rule equally good chirographists, we would advise them to act upon the above suggestion.

The medical classes are not as large as some of the more sanguine had reason, at the commencement of the lecture term, to expect. Some of the schools have, it is true, a very fair attendance, but the majority are considerably in the background compared with what they were last year. This is due to many causes, the principal one of which may be the increase in the fees so lately agreed upon; at least the fact that the only free medical school in the country having the round number of five hundred matriculants, should have its own significance in that connexion.

Considerable space has been occupied in the present number by Dr. Whitehead's article on Stricture. We, however, hope that our readers will agree with us in thinking that it has not been misappropriated.

Reviews.

Clinical Observations on Functional Nervous Disorders, by C. Handfield Jones, M.B. Cantab., F.R.C.P., London, F.R.S. Physician to St. Mary's Hospital. Philadelphia: Henry C. Lea. 1867. 8vo. Pp. 345.

The profession seem at present alive to the importance of the study of Nervous Diseases in their practical relations, by a tacit acknowledgment that most of the maladies that are met in practice, refer more or less directly to a temporary or permanent derangement of the nervous centres. This is as it should be, and we are glad to welcome any treatise which has for its object the elucidation of important truths connected with this interesting branch of our science. Most of the works that have appeared, have drifted so extensively into the discussion of theoretical points, that, aside from the presentation of curious facts, and a display of logical reasoning, they have been of little or no account to the practising physician; he has been, so to speak, left more in the dark than before, by the vexatiously scanty available information he received. The work before us is an exception to the general rule of text-books upon nervous diseases; and while, as its name indicates, and the author frankly avows, it is by no means a complete treatise, it is a very successful attempt in the right direction. In a word, it is a book calculated to guide and instruct the practical man, not only in the differential diagnosis of functional nervous affections, but what is still more important, gives an insight to their treatment. Indeed, the author lays more stress upon the importance of a proper understanding of the indications for treatment, and the inferences to be drawn therefrom, than anything else. Generally speaking, the relation of numbers of cases does not particularly enhance the value of a treatise, but on the contrary renders the body of the work heavy and for the most part unreadable; but in the present instance the histories are so well told, so complete, and so illustrative of the points which the writer makes, that they form a very interesting feature. Besides this, the book as a whole is made a very entertaining one, and is written in the attractive narrative style,

full of practical conclusions, and giving evidence of close observation and extended research. His general plan is to consider, in the first place, the behavior of the nerves and nervous centres in certain well marked simple morbid states, following which, we have the notice of the more important features of several classic diseases, as well as of other less commonly recognised disorders. Such a work as this is very much needed, and we commend it as being a useful, practical, interesting, and reliable one.

A Treatise on the Principles and Practice of Medicine, designed for the Use of Practitioners and Students of Medicine, by Austin Flint, M.D., Prof. of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, etc., etc. Second edition, revised and enlarged. Philadelphia: H. C. Lea. 1867. 8vo. pp. 956.

The appearance of the second edition of this valuable work within so short a period after the first, does not particularly astonish any one who knows the popularity of its author as a teacher and scholar. We expected this when the book first appeared, and are only too happy to so soon verify our prediction. The present edition has been much enlarged and thoroughly revised, the portion treating of pyæmia has been rewritten, three affections omitted in the last have been added, viz. pertussis, polyuria, general and cerebral paralysis, while cholera and thermometry are more fully considered. We have so recently noticed the first edition, that it would be unnecessary to reiterate our own appreciation of the work as a text-book for students and guide to practitioners. We are glad to see that it is printed on much better paper than before, and that it is handsomely bound.

An Index of Diseases and their Treatment, by Thomas Hawkes Tanner, M.D., F.L.S., Member of the Royal College of Physicians, etc. Philadelphia: Lindsay & Blakiston. 1867. 8vo. pp. 397.

The work before us "is intended," as the author expresses it, "to facilitate the daily work of the busy practitioner, and especially to help him in successfully managing such cases of disease as do not yield to treatment as might be desired." To say that it fulfils such indications thoroughly, is speaking of it in the highest terms as a practical and useful book. The diseases are arranged throughout the work alphabetically, the salient points necessary to form a diagnosis upon given, and then follows the treatment. The prescriptions are written in full in an appendix of formulæ, to which reference is made by numbers in the text. These formulæ are given in accordance "with the rules and preparations of the British Pharmacopœia;" and although in the main this may not interfere with their profitable consultation, still this part of the work would be rendered still more valuable by the adoption of our own system of Pharmacy. The "busy practitioner" will, however, find this to be an invaluable addition to his library, and it will serve him many a good turn in emergency. In style of binding and typographical excellence it sustains the well earned reputation of the house from which it emanates.

Vegetable Soap.—Mr. Payne recently brought from China to Europe, specimens of the vegetable soap used throughout that Empire. It is in the form of pods produced by two leguminous plants. Before using these pods for washing, the Chinese first cut away the greater part of the epicarp, and then rub the wet linen with the pod thus denuded; after which it is enough to rinse the linen in fresh water.

Progress of Medical Science.

The Relative Importance of the Nervous Systems, Oxygen and Blood in the Human Economy.—Dr. John O'Reilly, in the course of a circular to the President of the New York Academy of Medicine, in which he offers his prize for the best essay, with certain restrictions, upon the above subjects, claims to have established the following: (I.) That the ganglionic or vital nervous system is the most important organization in man, inasmuch as it is the seat of life. (II.) That the oxygen is next in importance, its presence being necessary for the production of the manifestations of life. (III.) That the blood ranks next in importance, as it serves for conveying oxygen to the ganglionic or vital nervous tissue, as well as provides for the wear and tear of the body. (IV.) That the cerebro-spinal nervous system stands fourth in importance, and is important only as providing for the physical necessities or comforts of man, but not essentially necessary for the preservation of life, as proved by comparative anatomy, as well as from facts deducible from other sources. (V.) That the ganglionic or vital nerves of the fœtus and the vital or ganglionic nerves of the mother inosculate in the placental lobule, thus establishing a nervous communication between the mother and child. (VI.) That life is communicated to the semen much in the same way that electricity is communicated by the torpedo to any object coming in contact with it when that animal is in a state of excitement; or as the pictures of flowers or plants are represented on the bodies of persons killed by lightning, in like manner the appearance of the internal organization of the male is reflected on the semen at the moment of its emission by the vital shock or current.

Preparation of Oxygen.—A new process has been patented in France, for obtaining a supply of oxygen gas from common air by means of highly oxygenated compounds, such as chromates and bi-chromates, manganates and permanganates, which, if deprived of a portion of their oxygen by means of steam, have the power of absorbing oxygen again when exposed to a current of dry, heated air. The improvement consists in making the action continuous, by placing in a retort one of the compounds mentioned, and passing into the retort a current of steam. A current of oxygen is carried off and collected in a gas-holder, while the steam is condensed to water. When oxygen has ceased to be eliminated, a current of dry, heated air is forced into the retort. The compound absorbs a portion of oxygen, and is again ready for the action of steam. Thus by the alternate action of air and steam, the same compound produces oxygen for an unlimited period. The process is said to work with great regularity, and may yet be of considerable importance in metallurgy.

A New Test for Iodine.—M. Carey Lee, of Philadelphia, has successfully used chromates in bringing about the starch reaction in the presence of iodine in extremely small quantities. For instance, in a solution of iodide of potassium, so dilute that the addition of nitric acid or starch produces no perceptible effect, the further addition of *a single drop* of a dilute solution of the bi-chromate of potash, instantly produces the well known change of color.

The Dead Sea.—M. Terrell, who visited Palestine in 1865, has addressed a note to the French Academy of Sciences, on the chemical composition of the waters of this inland salt lake. It has been generally believed there were no living creatures in it, but the author says

he saw in one spot, near Sodom, a number of small fish that seemed to thrive well. The following is a summary of his observations: 1. The density of the waters of the Dead Sea increases with their depth. 2. Their composition and concentration are likewise variable; thus, samples taken five miles east of Waddy-Mrabba, contain four times more calcium than those five miles east of Ras Teshkah, which contain twice as much soda as the former. 3. Samples of water from the north of Sodom, in that part which forms a lagoon, contain more chloride of sodium than chloride of magnesium, which explains why fish may live there. 4. The bromides alone seem to be concentrated much more in depths exceeding three hundred metres. 5. This lake constains no iodine or traces of phosphoric acid, and but a small portion of the sulphates. 6. The residue, after evaporation, examined with the microscope, does not show the presence of the rarer alkaline metals, lithium, cæsium, or rubidium.

Confirmation of M. Villemin's Experiments of the Inoculation of Tubercle.—Dr. Lebert, Professor at Breslau, has been trying the experiment of introducing tubercle into the system by subcutaneous injection. The amount introduced varied from fifty centigrammes to a gramme, diluted and triturated with distilled water. The nape of the neck was the spot chosen for injection. The experiments were made with Guinea-pigs and rabbits, and both grey and yellow tuberculous matter were employed, as well as liquid from a cavity. The result of his experiments was the finding of tubercles not only in the lungs, but in the liver, the spleen, the pleura, the pericardium, and the whole lymphatic system. Microscopic examination demonstrates the identity of these tubercles with those of man.—*Boston Medical and Surgical Reporter.*

Ozone.—Mr. G. Plante, in a note to the French Academy, states that fifty per cent. more ozone is produced in the electrolysis of water, when the poles are of lead, than when they are made of platinum. He conjectures the increase is the result of the secondary action of a layer of oxyd on the electrode.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Adjourned Meeting, December 13, 1866.

Dr. James Anderson, President, in the Chair.

VIVISECTION—ITS PROPRIETY AND USEFULNESS.

Dr. Dalton read a paper on the above topic, giving an account of the various objections which have been urged against it, and showing them to be, in the main, destitute of foundation. He submitted that, so far as the charge of cruelty was concerned, it was one usually made in ignorance of the manner in which vivisections are actually performed; the necessary operations being nearly always done, while the animals, subject to experiment, are under the influence of ether. In the few cases in which etherization is inadmissible (as in instances of experiment on the existence of sensibility in particular parts of the nervous system), it was also shown that the amount of pain inflicted is very small in comparison with what has been attributed to them; and that very frequently experiments on the nervous system are entirely painless, as shown by the testimony of Sir Charles Bell and other physiologists.

He then described the various difficulties in the way of experiments on living animals, and the mode in which they are met by physiological experimenters. The objection that the operations of the experimenter are themselves a disturbing element in the experiment, was shown to be a very old objection, and one which had often been brought up against physiological experiments, but always by those who were not familiar with the practice; physiologists themselves always foreseeing the difficulty and providing against it by various methods of procedure. The other difficulties and complications of physiological experiment were also considered, as well as the mode in which they are practically obviated by physiologists.

The latter part of the paper was devoted to an historical sketch of the most important physiological discoveries, and showed that all these discoveries were accomplished by means of experiments on living animals. The circulation of the blood, the nature and mechanism of respiration, the functions of different parts of the nervous system, the distinction made out by Sir Charles Bell between the fifth pair and facial nerves, the operation of transfusion of the blood, artificial respiration, the treatment of serpent bites and other poisoned wounds, and the office of the periosteum in the reparation of bone, were considered in succession, and the mode of their discovery described. In all these cases, the discovery was made by means of experiment upon living animals, and could not have been accomplished in any other way.

The history of investigation in regard to two important parasites infesting the human body, viz. the *Tapeworm* and *Trichina Spiralis*, was also given. It appears, that both these parasites are derived from eating pork infested with their embryos. But these embryos are so different from the complete animal, that there was no suspicion of any connexion existing between them, until experiments upon animals (by feeding them with the infected meat and observing the result) showed them to be identical. Thus at the same time the pathology of the parasitic disease was made out, and the true method of preventing it discovered.

The importance of this subject, especially in relation to trichinous disease, may be estimated from the fact that since 1860 several epidemics of trichinosis have happened in Germany, in two of which five hundred persons were affected, of whom over one hundred died; and also, that pork in this country is likewise subject to trichinosis, as appears by the Report of a Committee of the Academy of Sciences of Chicago, made in April of the present year. This Committee examined the flesh of 1,394 hogs, brought to Chicago for provision, and found twenty-eight of the number, or one in fifty, affected with trichina.

The paper pointed out, as above, some of the principal benefits which have accrued to the profession from physiological experiments on living animals, with a view to place this mode of investigation on its right basis, as a valuable assistant to scientific and practical medicine.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 23, 1866.

Dr. Frank H. Hamilton, President, in the Chair.

TRAUMATIC INFLAMMATION OF RETINA, ETC.

Dr. Noyes exhibited a specimen of an eye removed from a young man, the son of a farmer, twenty years of age. Four years ago the patient lost the sight of the eye by the explosion of a gun. He fired an ordinary shot-gun, holding it out at arm's length, when a broken cap flew from the hammer into the right eye.

Severe inflammation followed, resulting in the complete destruction of the eye, and continued several weeks. After this he did not suffer from any trouble for a period of four years, the vision of the other eye continuing good. The injured eye was the seat of cataract. Six weeks ago internal inflammation of the affected eye occurred, and the gentleman who attended the patient said that during the progress of the trouble the lens seemed to come forward into the anterior chamber. The recurrence of inflammation rendered it probable that a fragment of the cap still existed in the globe. Dr. Noyes examined the uninjured eye, and found nothing but a slight hyperæmia of the optic nerve. The operation of extirpation, being the only means that offered any relief, was advised and performed. After the extirpation the lesion of the eyeball was found to be somewhat peculiar. The cornea was perfectly transparent; still there was a trace of crystalline lens in the form of a cataract. The retina was entirely detached, and the vitreous humor absorbed; besides this, there was a band of false membrane running obliquely across the diameter of the globe, which was quite tough, and was capable of resisting considerable force. The existence of the band led to the inference, on the part of Dr. Noyes, that the fragment of the cap had completely traversed the globe.

ENDOCARDITIS AND ARTERITIS.

Dr. Finnell presented, on behalf of Dr. John Beach, two specimens removed from the bodies of persons who had been the subjects of Coroners' investigations. The first one was the heart taken from a man about sixty years of age. He had been ailing for several days past, and had in the meantime written to a friend stating that he felt quite sick; he was able, however, to go to the Eastern Dispensary and apply for relief. He was placed, as seen by his card, in the class of Head and Abdomen. He was known to be suffering a great deal from thirst the evening before he died. Early in the morning following he had gone down stairs to get a drink of cold water, and on returning rested on the stairs, and was in that situation found dead. At the autopsy no lesion was found, except in the heart. On laying open the aorta and left ventricle the lining membrane of each was found to be intensely injected; the pericardium was adherent throughout its whole extent.

Dr. Markoe was inclined to the opinion that the redness was due to imbibition of the coloring matter, as it was too intense to suppose that the sparse supply of blood to the internal coat of the artery could of itself produce it.

Dr Flint concurred in that opinion, but thought that on account of the velvety appearance of the surface of the internal coat there were evidences of some inflammation having existed.

Dr. Sands did not see why the existence of inflammation could not be conceded, as not only was the internal surface of the artery denuded of its epithelium, but the coats of the vessel were much thickened.

Dr. Jacobi believed that the artery had been inflamed, as it was not only thickened in its coats, but the intense redness was limited in extent.

Dr. Markoe was willing to admit that the vessel had been inflamed, but still held that the redness was post-mortem.

On motion, a committee, consisting of Drs. Jacobi and Sands, was appointed to examine the specimen microscopically, and report accordingly.

ATHEROMATOUS DISEASE OF AORTA—COMPLETE CLOSURE OF CORONARY ARTERY.

Dr. Finnell presented the second specimen, which was also a heart, that had been taken from a man sixty-five years of age, who, up to the time of his death, had always been considered as enjoying good health; his habits had, however, not been very regular, he having been quite intemperate up to within two or three years ago. At the time of his death he was dining with some friends, and, as a strange coincidence, remarked that he was soon going to make his will, but that he had determined to take his time about it. Immediately after this he was noticed to act strangely and lean forward; and on attempting to rouse him he was found to be dead.

The autopsy showed the heart to be the principal organ diseased; the aortic valves were covered with incrustations as well as the aorta. The most interesting pathological feature, however, was the complete closure of the coronary artery by an ossific deposit. Fibrinous coagula existed in both ventricles.

ENCHONDROMA OF SUPERIOR MAXILLARY BONE: EXTIRPATION.

Dr. Buck presented a specimen of enchondroma of the superior maxillary bone, and gave the following history of it:

"I have here, sir, a specimen of tumor removed last week from a patient in St. Luke's Hospital. He was a farmer by occupation, a native of Connecticut, and was in comfortable circumstances. This tumor occupied the mouth, and had originated in the alveolar portion of the right upper maxilla. It completely filled the mouth, extending so as to be firmly wedged in between the opposite sides of the lower jaw, depressing the tongue deep down into the floor of the mouth, and towards the left side, chiefly pressing against the teeth of the opposite side, and pushing them to a certain degree outwards. The tumor concealed the entire roof of the mouth, exceepting its anterior portion, and it was, in fact, impossible to pass even a probe between the tumor and the roof at any point. The forefinger, when introduced from over his face, standing behind him, so as to trace and follow the anterior surface of the tumor, could, with considerable difficulty, be passed under the tumor so as to reach its remotest point in the bottom of the fauces. There the right pillars of the palate could be felt spreading over the tumor, and it could be ascertained that a finger's thickness was the space between the tumor and the cervical vertebræ. The small molar teeth alone, on the right side, were in view; they were displaced, and simply held in the fleshy portion of the tumor; the other teeth were imbedded in the substance of the tumor, and were concealed.

"The tumor extended below the lower margin of the jaw, on the right side, and could there be distinguished, and caused a certain bulging of the submaxillary space as far forward as the molar teeth. Posteriorly it bulged in the parotid region, and presented itself behind the ramus of the jaw. It had, to some degree, pressed outwards towards the surface of the ramus of the jaw; that could be ascertained by comparing the two sides with the forefinger on each condyle, the jaw being at the same time moved. It was then seen that the right condyle stood out disproportionately far from the zygoma, and, viewing it from behind, it was evident that the space between the ramus of the jaw and side of the head was increased.

"The tumor was exceedingly hard and firm, and its general surface very much like that of a potato (Bermuda); there being one or two bulging knobs, and the surface being wavy.

"Notwithstanding the presence of this tumor, and its relations to the jaw, the patient was able to separate the front teeth so that two fingers could be introduced edgewise. He could masticate his food; deglutition was not interfered with, although he was obliged

to take his food by small mouthfuls. There was no disturbance of respiration; his voice was distinct, but a little thick, and he could not raise it to a high pitch. He was not conscious of having suffered in his general health; he had worked on his farm during the whole progress of the tumor until this spring; his friends were of the opinion that the tumor had grown more rapidly during the last winter than formerly.

"The history that the patient gave was, that about five years ago his attention was directed to a certain difficulty of swallowing, and soon to the appearance of a tumor in the mouth, towards the right side. His physician, Dr. Buel, of Litchfield, saw him at that time and recognised the tumor in that situation. The patient was twenty-eight years of age; his general condition was good; had a good appetite, and was not sensible of having lost strength. The exterior swelling was confined to the lower half of the face of the right side, below the line extending from the angle of the mouth to the zygoma, towards the margin of the orbit. The upper part of the cheek was not changed, not having undergone any swelling. The inference was that the tumor had not extended upwards, and had not encroached upon the orbit, and probably had not extended upwards into the cavity of the antrum. The coverings of the tumor were supple and movable; the coverings of the growth within the mouth presented the natural healthy aspect of the lining membrane of the mouth elsewhere.

"The operation was performed on Wednesday of last week; the patient was etherized, and it was observed that early after the administration of the ether the pulse became depressed. This was observed throughout the operation, which was a formidable, difficult, and protracted one. An incision was made from the zygoma through the upper lip, near the angle of the mouth, and the upper lip and parts covering the superior maxilla were dissected up towards the orbit, so as to expose freely the upper jaw. The anterior aspect of it, and also the nose, was detached from its connexion with the margin of the anterior surface of the nasal fossa of the right side. To ascertain the condition of the antrum an opening was made through it. It was thought very desirable to leave the floor of the orbit, if admissible. An opening was made with the rongeur forceps, and the finger being introduced it was ascertained that the antrum was empty.

"In the progress of the operation the respiration became a good deal obstructed, and the patient became threatened with suffocation. It was thought necessary, to prevent any unpleasant accident, to open the trachea, and introduce a tube through the crico-thyroidean space. This facilitated further proceedings, and we were satisfied that without it the patient could not have been safely carried through. The great difficulty was in dislodging this tumor. It was wedged in between the two sides of the lower jaw, and it was with the greatest difficulty that the fingers could be insinuated on either side of the tumor. But this was done after carefully exposing the surface of the tumor, cutting down through all its coverings; then the adhesions in immediate contact with it were loosened, and admitted of ready displacement. In the progress of this process it was discovered that an opening had been made into the growth about the middle of it anteriorly, and that it was hollow; the contents, which were fluid, no doubt, escaped unobserved. The object was to get a tract around the tumor, as it was found impossible to remove it entirely. The discovery that it was hollow facilitated the procedure. It was then divided across on either side, and the lower portion enucleated and removed; the remainder was removed in portions. There was a considerable loss of blood; a good deal was swallowed and discharged; and after the opening was made into the trachea a considerable portion made its way into the air-passages.

"The parts were brought together and secured with sutures. The patient, after the operation, was in a very depressed condition; his pulse was feeble and extremities cold, and as soon as possible we resorted to the administration of stimulants. Up to nine or ten in the evening no reaction appeared to take place, and at that time it was difficult to introduce the stimulants into the stomach from the irritation that they caused. Later in the evening I sent word to have a tube introduced into the stomach for the purpose of giving him fluids; this was done throughout the remainder of the night. Next morning I was encouraged by finding the temperature fully up to the mark, although his pulse was not at the same time very steady. Towards evening, some three or four hours after my visit, he, however, sank rapidly and died.

"The microscopical examination of the tumor shows it to be of enchondromatous structure. Mr. Paget describes this tumor as sometimes occurring in the upper jaw, and cites but a single case. This form of disease, as connected with the upper jaw, is very rare; with the lower jaw, however, it is not uncommon. I am convinced that if the patient could have been subjected to the influence of ether a shorter time than was required for the operation, he might have struggled through.

"The tumor, in its growth, had necessarily appropriated for its covering the lining of the cavity of the mouth and fauces of that side; and in the removal of the mass the membrane was left extensively detached, so that the right half of the velum was torn across transversely, about a finger's breadth from its inferior margin; and the connexion of this membrane over the pillars of the pharynx, and to some extent the portion covering the wall of the pharynx, and the whole of that side of the mouth, when left to itself, fell down deep into the pharynx. I found it necessary to attach it to the point which would best keep it nearest in its place. By passing a suture through the internal pterygoid muscle the flap was held up nearly in its normal position; other sutures served to attach it to other parts of the mouth."

TUMORS OF UVULA, EYELID, AND BUTTOCKS.

Dr. Post exhibited a small fibro-cellular growth, which he had removed from the right side of the uvula of a patient, thirty-five years of age. By its position and size it pushed the uvula considerably towards the left side.

He also presented a small cyst which he had removed from beneath the *upper eyelid.*

The next specimen was also presented by Dr. Post. It was a tumor taken from the gluteal region of a man fifty years of age. The growth had existed in that locality for two years, and during that time had been gradually increasing. It was deeply situated behind the trochanter, on the left side, and there was a corresponding tumor of smaller size on the opposite buttock. On removing it Dr. P. found that the outlines of the growth were very ill-defined, and that it was very firmly adherent to adjacent parts. On exposing its under surface he found that it was developed in the outer wall of the synovial bursa of the trochanter, a portion of which was removed with the tumor. The tumor, examined microscopically, was found to consist of fibrous tissue oil-cells and a large amount of granular matter.

Dr. Post lastly exhibited a specimen of scirrhus of

the breast, which he had removed at the same time. Under the microscope the structure of the growth consisted of a large number of nucleated cells of all sizes and shapes.

In conclusion, Dr. Post remarked that the two last patients were operated upon in the University Medical College, just before that building was destroyed by fire, and both barely escaped with their lives.

Dr. Bradley exhibited a steatomatous tumor from behind the mastoid portion of the temporal bone of a woman sixty years of age. It was composed principally of cysts, which were filled with crystals of cholesterin.

He likewise presented a calculus, which he had removed from the bladder of a child four and a half years old. The little patient first experienced trouble in micturition last Christmas. The median operation was performed on the 25th of last month, and the patient made a good recovery. The stone weighed fifty-six grains, and was composed principally of phosphates.

Stated Meeting, June 13, 1866.

report of committee in case of supposed enteritis.

Dr. Jacobi, in behalf of the Committee appointed at the last meeting to report upon the case of supposed enteritis, made the following remarks:

It will be recollected that a doubt was raised by Drs. Markoe and Flint, whether the high color of the tunica interna was the result of inflammation, or *post-mortem* imbibition. A magnifying power of eighty to one hundred diameters did not reveal any change in the general appearance of the membrane. It did not show that the redness was confined, or belonged to the vessels of the tissue. We were then of the opinion that the redness was due to a *post-mortem* change. At the same time, there were in our opinion proofs enough that there was an inflammation besides. First, the aorta, as was at the time of the discussion remarked, was a good deal thicker than normal, twice or three times thicker than it should be; second, it had a peculiar velvety appearance, the tunica interna was discolored, and mottled with white or greyish spots. These white fat-looking bodies did not protrude above the level of the internal coat, but appeared to be the result of a general thickening. Under the microscope the white spots did not reveal anything else but the connective tissue of the tunica interna; the intervals between the lacunæ being filled in with cells which had undergone fatty degeneration. Fat granules were also in great abundance in the membrane. The external and muscular coats were respectively thickened, and contained a large number evidently of new formed cells, containing one or more nuclei and nucleoli, the cell's wall disappearing on the addition of acetic acid. These results show, first, that there was acute arteritis showing itself in the cells alluded to, and chronic arteritis, as shown in the condition of the internal coat; and further, that the high color was due to simple *post-mortem* imbibition.

Dr. Rogers stated that he had taken home a portion of one of the semilunar valves which was intensely discolored. It was only after washing it thoroughly, and macerating it for twenty-four hours, that he could succeed in decolorizing it. The water in which it was immersed became slimy and red, but on examining the sediment he was unable to detect any blood globules, proving to his mind that the redness was due merely to imbibition.

fracture of cricoid and thyroid cartilages.

Dr. Hamilton presented a specimen which had been sent him by Dr. Ellis, of Kent Co., Michigan. He then gave the following history:

It is a fracture of the cricoid and thyroid cartilages. The accident occurred on the 13th of September, 1864, the patient being kicked in the throat by another man who happened to be on a platform above him. The blow was inflicted on the front of the larynx a little to the right side. After the receipt of the injury the man staggered and was able to walk to his house, which was some distance from the place. The physician was immediately called, and found his patient with symptoms of threatened suffocation. No surgical means were employed for his relief, and he died in two and a half hours. The autopsy was made by Dr. Ellis, but he did not examine the interior of the laryngeal box. He observes that there was a fracture of the thyroid cartilage nearly in the median line, in front, and a little to the right; that the cricoid cartilage was broken vertically, or nearly so, deflecting obliquely nearly an inch from the median line.

I think that there is a line of fissure on the left side corresponding to this point. The thyroid cartilage is depressed about two lines on the right side. The point of interest on laying it open is, that I find that there has been an extensive infiltration of blood underneath the mucous membrane lining the larynx, and extending a little down in the trachea. This effusion is particularly abundant on the right side, just below the ventricle. The Dr. informs me that at the autopsy (two years ago), this bloody effusion filled up the larnyx.

I believe that this man died of apoplexy of the larynx. I think that whatever effusion may have occurred in the course of two hours and a half, would have been comparatively insignificant. It is very apparent now, that an operation might have saved the patient's life, yet it is a little remarkable, although this operation is the natural suggestion in the great majority of instances, it has not been performed. In the majority of instances the patients have been permitted to die without interference, in all probability the diagnosis not being fully made out, or it not being supposed that the fracture of itself should cause death.

In connexion with this case, I may say that I reported one of fracture of the cricoid and thyroid cartilages on which I operated. The patient survived seventy-two hours after the injury, and thirty-six hours after the operation. I do not know what he died of, as he was very far from my residence. His symptoms of suffocation, however, were entirely relieved. In these cases there is very strong reason why the operation should be performed early. The injury is a very severe one, and the swelling which will soon interpose will be a very serious obstacle.

In answer to a question from Dr. Post, he remarked that the physician thought his case was terminated by inflammation of the lungs.

Dr. Krackowizer did not think that pneumonia could kill a man in thirty-six hours, but was disposed to refer the cause of death to the œdematous effusions and congestion of the organs, brought about by the disturbance in the lungs occasioned by a struggle of thirty-six hours for breath.

hysterical mania, caused by irritation of spicula of bone, etc.

Dr. Sayre presented a portion of the calvarium and dura mater removed by post-mortem section from a lady twenty-five years of age, whom he had seen in consultation with Drs. Bloodgood and Brown-Séquard. He gave his testimony as follows: The patient, who was the mother of four children, had always enjoyed good health until her last sickness, and belonged to a healthy

family. I first saw her on Sunday, June 3, she having on the Wednesday previous wakened out of a sound sleep with a most violent screaming delirium. Narcotics had been given her to make her tranquil, but nothing but chloroform had been of any avail. If the administration of the anæsthetic was not kept up she would arouse herself, and shriek to the top of her voice, seemingly furious over a pain in the top of her head and left temple. There had been no excitement of the pulse during all this time, and her skin seemed to be natural; there was no coating on her tongue. Her bowels were regular, and her kidneys had acted well until that day (June 3), when a catheter was called into requisition. This instrument had afterwards to be constantly used until her death. A careful examination of the urine disclosed nothing abnormal. Finding no cause for the difficulty, I pronounced the case one of hysteria. An injection of ten drops of Magendie's solution was given, and the result was, that in five or ten minutes she was asleep. Being out of town at the time, the patient felt so much better, that the following morning she came to the city. In a few hours after her arrival she had another attack, and I was immediately sent for. I found her in the most violent contortions, seemingly wild with the pain in her head, and shrieking so as to alarm the neighborhood. When you spoke sharply to her you could control her to some extent for a time, but any moment she would "go off" into the most violent contortions of her body, and scream as before. Dr. Brown-Séquard then saw the case with me, and pronounced it one of hysterical mania. The frequency and severity of the spasms seemed to increase upon her for two or three days, when I observed that she was reckless in regard to her striking out; and finding that she had bruised herself seriously in consequence, I began to suspect that there was not so much of an hysterical element in the disease as had at first been supposed. We found that nothing afforded her even temporary relief, except chloroform by inhalation. She inhaled eight pounds of the anæsthetic from the 3d to the 16th of June, during most of which time it had been incessantly administered to her. Dr. Bulkley saw her in consultation, and he continued to visit her twice a day until she died. Her stomach could not retain anything fluid or solid, and after a while she persisted in refraining from all nourishment. She had a tendency to lie upon her face, with her head buried in the pillow, her legs being kept in a perpetual and violent motion. Notwithstanding this severe tax upon her vital powers, she did not seem to waste away any, and her muscles were possessed of their usual hardness, and her body of its customary plumpness. After a time the urine, which was by the way copious enough, began to give forth a most sickening odor, and finally became so intolerable that at the time it was drawn off the other occupants of the room would actually be driven out. This strange and disagreeable odor we were disposed to refer to the large quantity of chloroform inhaled. Her menstruation came on about the 9th instant, and continued to be normal until the 14th, when it ceased. On the latter day there was noticed a marked weakness in one of the lower extremities, and on the day following this amounted to complete paralysis. The succeeding day the other leg became similarly affected, and that evening she died.

Autopsy.—The genital organs were perfectly normal. The abdomen was perfectly healthy, although the cavity of the peritoneum was entirely dry. The intestines were healthy, and the kidneys normal; but the liver was considerably enlarged, was of an ochrey color, and so friable that it fell to pieces in the attempt to remove it. The heart and lungs were healthy. On opening the brain there was a good deal of congestion; there was, however, no apoplectic effusion, and the brain itself was very much more than ordinarily firm. On the left side of the dura mater there was quite a sharpened projection of bone, about a quarter of an inch in length, and also a similar piece in the situation of the falx cerebri, as well as smaller and more rounded pieces from other portions of the membrane. The first spiculum discovered was, on the point projecting against the brain, as sharp as a needle. This was all that could be discovered about her. I am disposed to think that the irritation caused by these spicula gave rise to the patient's disease. I am as confident as I can be that she suffered from great pain in these situations, as she would constantly point with her fingers to these two spots, on the top and side of her head, and entreat us in the wildest sort of desperation to "bore a hole" there, and relieve her.

Dr. Rogers stated that it was not uncommon to find acute softening of the liver in cases that proved rapidly fatal. He suggested that the chloroform might have had something to do in bringing about this result.

Dr. Hamilton thought that there might be a possibility that the true cause of the trouble was not found after all, as it was very natural at first sight to refer such symptoms to a piece of projecting bone, when in reality the deposit might have had little or nothing to do with it.

Dr. Sayre remarked that the patient, for some months previous to death, had been subject to melancholia; had anticipated death with such certainty that she could not be persuaded out of it, and had gone to the trouble of having a number of photographs taken for such of her friends as she wished to be remembered by. He was of the opinion that the portions of bone which projected into the cavity of the cranium, were at the time not large enough to produce any other brain symptoms, but that afterwards growing more rapidly, violent convulsive actions resulted.

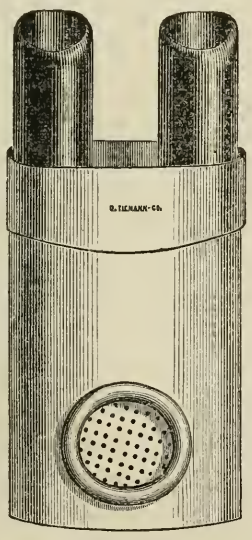
Dr. Post did not think that the projections were large enough to injure the brain by pressure, but believed that the friction of the organ against the sharp points gave rise to the irritation. The Society then adjourned.

New Instruments.

A NEW INHALER.

We are indebted to Dr. Chisolm, Professor of Surgery in the Medical College of South Carolina, for the useful apparatus, of which a drawing is here exhibited. Dr. Chisolm has long used it as a chloroform inhaler, but we see no reason why its usefulness should not be extended to include the administration by inhalation of any of those volatile preparations which are now deservedly considered remedies of no small value in the treatment of affections of the throat. We learn that when chloroform was scarce in the Southern army, and could only be introduced into the blockaded States at great expense, this apparatus was designed as a chloroform economist, and was found to answer well the purposes expected of it. Its principle of action is similar to the folded handkerchief or towel, which we have always considered the most convenient and safe method of administering chloroform. In the use of the towel or folded handkerchief, we, in common with all surgeons, have been made to take chloroform whilst administering it to our patients; and as the greater part of the chloroform poured upon the cloth evaporates into the air of the room, all persons around the patient are more or less influenced by the evaporation. The object of

this chloroform inhaler is to confine the volatile fluid to the patient alone, and thereby concentrate its action, and save the great waste which usually takes place from the towel. There are a great variety of chloroform inhalers; most of them are bulky, and made in such a way as to cover both the nose and the mouth. The chloroform being administered in a concentrated form, most frequently causes struggling on the part of the patient to escape the suffocative sensation of the concentrated ether. By the use of this simple apparatus the patient inhales through the nose alone; and should any of the annoying sensations about the throat be experienced, he can immediately relieve himself by opening his mouth. As by its use the patient quietly passes into sleep, all struggling is avoided, the more particularly as no ether can affect the eyes of the patient. The advantages claimed for this new inhaler are, 1st, its simplicity; 2d, safety in its use as a mode of administering chloroform, as the patient must always get a well diluted vapor, sufficiently mixed with atmospheric air; 3d, economy in the use of chloroform, as one drachm is made to do the full work of one or two ounces upon the handkerchief; 4th, the unassuming appearance of the instrument, which does not frighten timid patients, who would often be much alarmed by the larger and more cumbersome apparatus. 5th. Portability. The entire instrument is not larger than an ordinary lancet case, and can be readily carried in the vest pocket, without inconvenience.

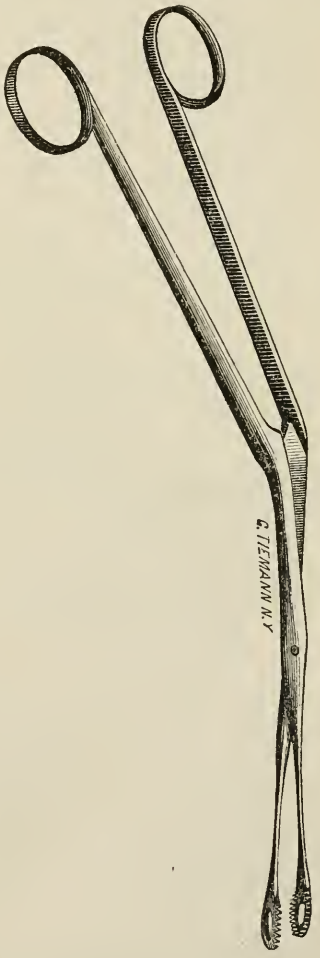


The instrument, as will be seen by an examination of the accompanying drawing, consists of a flattened cylinder of two and a half inches long and one inch wide, in its broadest diameter, having in one of its broad surfaces a perforated plate. Attached to the cover are two nose-pieces. When the instrument is not in use these projections can be pressed into the box, which diminishes the size of the instrument, and makes it a convenient package for the pocket. When the top of the box is removed the interior is found to contain either a piece of sponge, or what is much better, a bent wire, over which is folded a piece of cotton cloth. The chloroform, when dropped through the perforated plate, is received upon the sponge or folded cloth, which offers an extended surface for evaporation.

Those who have tried this inhaler speak of it in unqualified praise. We feel assured that it will very soon find its way into the hands of all who practise the surgical and obstetrical branches of medicine.

SIMROCK'S POLYPUS FORCEPS.

The woodcut represents the polypus forceps used by Dr. Simrock to extract polypous growths from the cavity of the nose, while at the same time, from a reflector fastened on the forehead, focal light is thrown in to guide the instrument. The forceps differs from those formerly used, not only by its angular bend but also by its more graceful and delicate form, so that it can easily be introduced between either the turbinated bones or between these and the septum nasi. As an advantage, it was claimed for the straight instrument, that it could be turned round its axis after grasping the body of the polypus, and that by this manœuvre the base of the polypus could be easily detached without imperilling the parts from which it originates. This manœuvre could be accomplished by the angular-bent instrument just as well, because the part of it inside the nose is straight also. But experience derived from operating on a large



number of polypi has shown, that the turning procedure is entirely unnecessary, and that after grasping the body of the polypus as near as possible to its root, a slight traction will be sufficient to detach it from its place of insertion, provided that the branches of the instrument can be approached near enough to the base of the polypus without grasping other parts contiguous thereto. This, in fact, can be readily accomplished on account of the more appropriate form of the instrument, which at the same time is guided by the strong focal light.

It is needless to mention all the advantages of this method of performing operations inside the nasal cavities under guidance of strong focal light, and it will be easily understood that, whenever this method is brought into use for nasal polypi, the straight instrument will be by far inferior to the one described, on account of being in the way of the light.

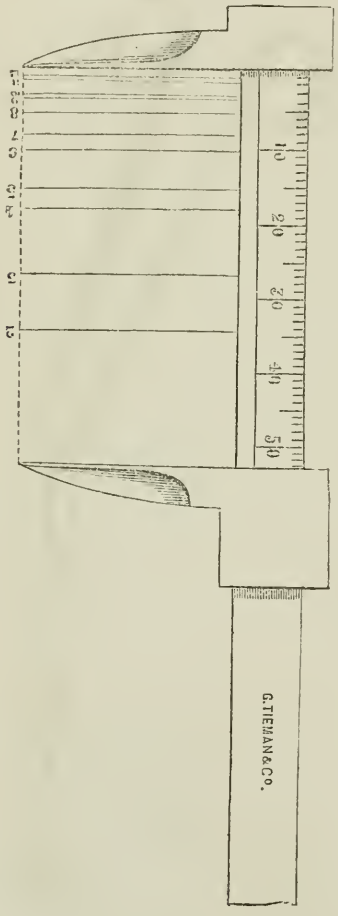
THE ÆSTHESIOMETER AND ÆSTHESIOMETRY.

By E. SEGUIN, M.D.,

NEW YORK.

The æsthesiometer is an instrument by which tactile sensibility may be measured.

Æsthesiometry is the method of using the instrument, to determine accurately the signs and indications important in physiological, clinical, and pathological observations.



The first instrument used for measuring sensation was devised by Ernest H. Weber, and consisted of a long and straight piece of steel, to which, at right angles, were attached two movable points, which might be approximated or separated in a straight line. By means of these movable points, shielded by cork, Weber ascertained the exact distances or limits within which two distinct cutaneous impressions made at the same time, are capable or not of being identified. He used also the ordinary steel mathematical compass, blunted at the points.

The aphemetric compass of Dr. Ogle consists of "a pair of mathematical compasses, with the usual joint, furnished with a circular dial-plate, whose circumference is divided into tenths and twentieths of an inch, and provided with a central hand and indicator, which may be moved in any direction, so as to point to the various subdivisions."

The æsthesiometer of Sieveking did not differ sensibly from the instrument first employed by Weber, in 1834. To Sieveking belongs the honor of having named it, and to Brown-Séquard* the honor of having brought it to its present shape, and applied it to practical medicine.

The æsthesiometer of Brown-Séquard, which we prefer, and reproduce with his permission, consists of a decimètrical rule, graduated to millimètres, terminated at one extremity by a fixed branch; another similar, but movable branch, sliding on the rule, marks the distance at which the points begin to be perceived by the skin. It is also furnished with a handle, whose adaptation is optional. The inventor seems to disregard it altogether in practice, and our own æsthesiometer has no handle at all.

As *manœuvre* adds a good deal to the efficacy of all instruments, that of the æthesiometer needs description. It is held by its flat sides (at a point nearer its centre of gravity than its centre of length), between the thumb and the three last fingers, whilst the index, slightly brought to bear on the back of the rule, serves to regulate the contact of the points of the compass with the skin. This contact, light or deep, sudden or slow, uniform or graduated, localized or progressive, according to the object in view, must be in accurate parallelism with the surface. This procedure requires some practice, but is easily attainable.

As might be imagined, the discovery of Weber was soon taken up by experimenters. G. Valentin, W. B. Carpenter, H. Belfield Lefèvre, and Graves, of Dublin, were among the early contributors to the foundation of a normal standard of æsthesiometry. These normal measurements are given by John C. Dalton (Human Physiology, p. 463), in the following condensed table.† The scale is altered from the Paris lines to metrical subdivisions.

	Centimetres.	Millimetres.	
At the tip of the tongue,	—	1	05
" palmar surface of the tips of the fingers,	—	1	59
" palmar surface of the second phalanges,	—	3	42
" palmar surface of the first phalanges,	—	3	63
" dorsum of tongue,	—	5	50
" dorsal surface of fingers,	—	8	58
" cheek,	—	9	99
" back of hand,	1	5	32
" skin of throat,	1	8	24
" dorsum of foot,	2	7	55
" skin over sternum,	3	4	72
" middle of back,	5	3	25

These results are given as the average conclusions of great patience and thorough research. Accepting them as such, we will append to them only a few remarks.

Other parts might be studied with benefit, and we shall particularly call the attention of subsequent observers to the regions whose tactile sensibility de-

* *Recherches sur nos moyens de mesurer l'Anæsthesie et l'hyperæsthesie.* Comptes-Rendus des Seances de la Société de Biologie, p.169.

† A very lengthy and detailed table is to be found in Todd's Cyclopædia of Anat. and Phys., vol. iv., p. 1169.

pends upon the branches of the fifth cranial pair of nerves.

We very soon perceived that the æsthesiometer did not exactly give the same results when its points were parallel, as when they were transverse to the nerve's distribution; an observation which (as we have since seen in the paper of Dr. Ogle, on his own aphemetric compass) had been anticipated by Weber himself, in somewhat different terms, worth repeating: "Moreover, the points of the compass brought simultaneously into contact with the skin in a longitudinal direction, appear to be much closer to each other than if they are placed in a horizontal position as respects the axis of the body, or the limbs, etc."

This difference of results, according to the direction of the points, far from invalidating the testimony of the instrument, confirms it by proving its delicacy, and shows, that if the discovery of Weber is important, it is not yet so complete as not to leave to every one of us a great deal to do, to bring æsthesiometry to perfection.

1.—It was first used to ascertain the deviations of sensibility from the normal standard, tabulated above, as in general or local paralysis, paraplegia or hemiplegia, etc.

2.—Since it has been applied to the prognosis of the same affections eventually subsequent to insanity, epilepsy, contractions, etc., being useful only in the clinic of special affections, as is the stethoscope, the ophthalmoscope, etc.

3.—But the time has arrived when the surgeon as well as the physician will derive from its use in general practice, one of the surest physical signs. Thus in the diagnosis of deep wounds, or of extensive bruises, or of shocks, the æsthesiometer tells very soon the precise extent of the damage sustained by the nerves of sensibility; and in febrile states of surgical or medical origin, the exaltation, diminution, or loss of tactile sensibility may be really measured instead of guessed at. Indeed the evidence furnished by the æsthesiometer—particularly when considered together with the indications of the thermometer—can compare favorably for positivism, with that afforded by any means of diagnosis.

4.—As will be evident upon trial, this instrument will be accessorily found the very one required for various anatomical measurements, either on the living subject or in autopsical examinations, such as the diameter of nerves, blood vessels, etc., the thickness of membranes, of bones, etc. Strange to say, but true, we had no instrument of accurate measurement before this was suggested by the present house physician of the New York Hospital, Dr. E. C. Seguin.

When we urge the resort to this new clinical test, we are prompted by no selfish motives, since the method belongs to Weber, and the instrument to Brown-Séquard. But we do it because, in our estimation, æsthesiometry proffers one more of those (so few!) means of positive diagnosis, which will help the medical profession to emerge from vague and disputed opinions, and to rank on a par with, if not above, the other natural sciences. Already possessed of chemical and microscopic analysis, of auscultation and percussion, of thermometry and æsthesiometry, the general practitioner may feel himself already on a level of certainty with the surgeon.

The two objections raised against the clinical use of æsthesiometry, by John H. Ogle, in the first volume of Beale's Archives of Medicine, have no weight. For if the statement of patients in regard to the sensations produced by the contact of the æsthesiometer cannot always be relied upon, the statements of other patients in regard to different sensations, are equally to be put to a severe criticism before they can be accepted as sound elements of diagnosis. And as for the difference of tactile sensibility found in various subjects, these individual peculiarities cannot invalidate the æsthesiometric method of observation any more than the great and very frequent deviations of the pulse can induce physicians to dispense with its study.

Two classes of men may be found opposed to the introduction of new instruments of positivism in clinical medicine. Those very few who are born or situated so favorably as to be able to foresee and foretell everything in medicine, and those who are not interested in the advancement of their profession. The first, because they do not themselves need these new instruments of precision; the second, because the word *progress* sounds to them like a reproach. But as real progress does not consist in the vertiginous exaltation of a few, but in the solid elevation of the masses in each profession—as has been shown in the last twenty years by the fall of the French, and by the rise of the German school of medicine—it seems wise to prepare the future of the American school (among other liberal measures), by the propagation of the new means of investigation.

New Publications.

Books and Pamphlets Received.

Annual Report of the Surgeon-General, U. S. A. 1866.

Eleventh Annual Report of the Trustees of the State Lunatic Asylum, at Northampton. Oct. 1866. Boston. 1867.

Insanity in its Medico-Legal Relations. Opinion relative to the Testamentary Capacity of the late James C. Johnston, of Chowan County, North Carolina. By W. A. Hammond, M.D. N. Y. Baker, Voorhies & Co.

Medical News and Items.

Dr. Conneau.—It has been remarked that nearly every profession but that of medicine was represented in the French Senate. This anomaly has struck the Emperor, it would appear, as the *Evènement* announces that his Majesty's physician, Dr. Conneau, is to be promoted forthwith to a seat at the Luxembourg.

Settlement of Physicians' Accounts.—The Secretary of War orders that paragraph 1,308, Revised Regulations of the Army, be modified so that a physician's account of pay due, in the ordinary form of an officer's pay account, shall be presented to a paymaster for payment, vouched for by a certificate thereon by the commanding officer that it is correct and agreeably to contract, and that the services have been duly rendered, which certificate he will not make unless the contract has been approved by the Surgeon-General or the Medical Director of the Department.

Proposed New Hospitals upon Randall's Island, New York.—At a semi-monthly meeting, in December last, of the Commissioners of Public Charities and Correction, it was decided to establish a hospital for incurables at the alms-house on Randall's Island. The architect of the Board also received orders to prepare a design for an insane hospital capable of accommodating eighty persons.

A Morgue in New Orleans.—They are to have a morgue in New Orleans, similar to that in Paris, New York, and other cities.

Rhœudine.—Hesse has discovered a new alkaloid in the red poppy; it is also found in good opium. It is soluble in water, alcohol, and ether, and crystallizes from the last in white prisms.

Wounds by the Prussian Needle-Gun.—The *Lancet* has lately published a series of most interesting studies made in the military hospital, by Dr. Bruce, of University College, London. The learned doctor has applied himself to the study, at the above-named hospital, of the wounds produced by the different balls used in the armies. After minutely examining into the matter, he declares himself in favor of the general opinion that the wounds caused by the Prussian needle-gun are less dangerous than those produced by the Austrian Minié rifle.

Report of Massachusetts State Lunatic Asylum.—The number of patients in the State Lunatic Asylum at Northampton, Mass., October 1, was 405; 136 new patients were received during the year, 58 of them from other State institutions; 24 were discharged cured, 20 improved, and 8 unimproved. The number of deaths was 31. The treasurer's report shows an expenditure of $77,983 for the year, less $1,372 now on hand, and the receipts were $5,000 less. The principal sources of income were as follows:—Board for private patients, $21,403; board of town paupers, $6,307; board of State paupers, $52,206; and for animals and produce of the farm sold, $1,691.

Dr. Hall, Inspector-General of British Hospitals, recently died from an overdose of colocynth.

The Cholera Epidemic at San Antonio, Texas.—The cholera has entirely ceased its ravages at this place, after carrying off over 400 of its inhabitants.

The Medical and Surgical Pioneer, is the title of a monthly record of medicine and surgery, edited by J. Keller, M.D., published in Kansas City, Missouri. The first number comes to us well supplied with original communications and selections, and is got up in a very creditable shape. We wish it success.

Ravages of the Cholera in Berlin, Prussia.—7,838 persons have been attacked with cholera, up to October 4, 1866, in Berlin, during the present year, of whom 5,001 have died.—*Central Zeitung, Berlin.*

Maimed in Virginia.—The committee appointed by the board of surgeons to ascertain the number of maimed soldiers in Virginia reports returns from fifty-seven counties, as follows: Amputations below the knee, 109; amputations above the knee, 84; amputations below the elbow, 35; amputations above the elbow, 132; making a total of 360 amputations, with one amputation of both feet, and one amputation of both arms. They estimate the remaining fifty-nine counties so as to swell the aggregate to seven hundred and fifty. They think that an appropriation of $20,000 would be sufficient to meet the needs of those requiring State help to secure artificial limbs.

Typhus Fever in the Baltimore Jail.—Owing to the prevalence of typhus fever in a malignant form at the Baltimore city jail, the Warden of the Penitentiary has addressed a note to Judge Bond, of the Criminal Court, requesting that for the present no criminals from the jail be sent to the penitentiary, lest the disease should be communicated to convicts in the penitentiary, which is now very much crowded.

Small-Pox in Chattanooga, Tenn.—An epidemic of small-pox is raging fiercely at Chattanooga, Tenn. The destitution of the poor there is said to be extreme.

Female Medical Mission to India.—It is proposed to set on foot a medical mission among the native women of Delhi, with the double object of alleviating much physical suffering and of taking a knowledge of Christianity to them in their secluded homes. This is a work which can only be carried on by a woman, as the native women in many cases will rather die than be seen by a man in times of sickness. The first lady will proceed to Delhi and act under the guidance of the missionary of the Society for the Propagation of the Gospel in that city. Her work will be as follows: 1. To attend native ladies in their zenanas. 2. To set on foot a dispensary for women only. 3. To train native women as nurses. There are a great number of respectable but destitute native women in Delhi for whom the means of an honest livelihood will thus be provided. The lady, while she will be working in connexion with the mission of the Propagation Society in Delhi, will in all matters medical act when necessary under the advice of the civil surgeon. One lady has already offered herself, but was not deemed physically qualified, and ladies are now wanted for this work. This project will open up a new sphere of usefulness for Christian ladies, and may even be looked upon as an introduction to a class of Indian medical practice by which large pecuniary returns would subsequently be secured by ladies of adequate medical knowledge and skill.—*Exchange.*

Charcoal Pegs for Actual Cautery.—These are lighted and burn like a cigar, the end being somewhat pointed. They should be applied in a direct horizontal line, because pressure sideways would break the point. The composition is as follows:—Powdered charcoal, 300 grains; nitrate of potash, 22 grains; gum tragacanth, 75 grains; water, 360 grains. Mix into a mass, and roll it into the shape of ordinary lead-pencil, about three inches long. Very few ashes are yielded, and when any form, they may be blown away, the current of air thus keeping up combustion.—*Medical Press and Circular.*

Sycosis Menti cured by the Sulphate of Soda.—C. M——, aged 24, consulted me, January 11, 1866, for sycosis menti, which extended over his chin, the sides of his face, and upper lip. Having noticed a short time before, the case reported in the January number of the *American Journal of the Medical Sciences*, 1866, by Dr. Dale, cured by sulphite of soda, I determined to further test the efficacy of the sulphite in this obstinate disease. I used Dr. Dale's prescription—sodæ sulphit. gr. xl., aquæ ʒ ij, glycerine ʒ j., and so rapidly did the cure follow that in eight days not a trace of the disease was discovered. It is now three months since the cure was effected, and up to this time there have been no symptoms of a return.—*American Journal of the Medical Sciences.*

Influence of Sewing-Machines upon the Health and Morals of Female Operatives.—Doctor Guibort, Physician to the Hospitals of St. Louis (*Revue Clinique Hebdomadaire*), reports a few cases of patients who ascribed their leucorrhœa, menorrhagia, emaciation, dyspepsia, etc., to the use of the sewing-machine. Some of his patients confessed to a venereal excitement during work, superinduced by the rapid friction of the thighs one upon the other, and which at times rendered a temporary suspension of work necessary. He thinks that a motive force other than that generated by the alternate action of the pedals might be advantageously used.

Childbirth in Paris.—In the second quarter of the present year 9,601 legitimate children were born, and 3,854 illegitimate.

Original Communications.

FACE PRESENTATION IN THE MENTO-POSTERIOR POSITION.

WITH REMARKS UPON THE TREATMENT AND THE MECHANICS OF A CASE.

By STEPHEN ROGERS, M.D.

The following history will, I presume, be of practical interest, relating as it does to the management of one of those unusual face presentations, of which Churchill says, that Smellie and other of the older writers speak as possible to be delivered, but that, in his opinion, "a moment's examination will show that this is mechanically impossible." He, therefore, distinctly declares his disbelief in the accounts of those writers who describe successful deliveries of cases wherein the head "emerged from the lower outlet with the chin towards the perineum."

Cazeaux also says that delivery, at term, in this position, is impossible, and speaks of the conditions of this presentation as "constituting one of the most serious difficulties of the obstetric art."

The most modern summary of our knowledge upon this subject, I find in a paper read before the Obstetrical Society of London in 1865, by Dr. Braxton Hicks, upon Face Presentation in the Mento-Posterior Position. It reads as follows: "Although, in the majority of cases, the chin rotates forward during the descent, in face presentations, whatever was the position it occupied originally, yet in some rare cases the chin passes through the outlet obliquely, while in others the rotation cannot be accomplished at all, either by nature or art. Under these circumstances, in some very rare instances delivery takes place spontaneously, though the greater number of this rare class require the use of the forceps, by means of which either the chin over the perineum, or the vertex beneath the arch of the pubes, might appear first." Dr. Barnes, the president of the society, remarked on that occasion, that inasmuch as Dr. Hicks had, by the aid of the forceps, accomplished the delivery of a living child in this position, he thought it "probable that the pelvis was large in proportion," and added that "in cases of due relation of pelvis and child, birth with the chin posteriorly was almost impossible; for in proportion as the face descended, there was a rapidly widening base of a wedge, formed by the occiput bent back upon the child's trunk, which could not pass the pelvis."

Mrs. ——, multipara, aged about 30, having passed several confinements without difficulty, had, out of motives of economy, employed a midwife to attend her on this occasion. After suffering the pains of labor for about twenty-four hours, without any prospect of their termination, she was persuaded by friends to send for me, though the midwife assured her that it was only a "dry labor," and would terminate favorably in time. I found the patient suffering frequent and exhausting pains, with a countenance expressive of the agonies of desperation; the pulse about 120, and the external genitals hot and rather dry.

A careful digital examination satisfied me that the anterior fontanelle was behind and to the left of the symphysis pubis, and that the chin was low down over the right sacro-iliac synchondrosis. Placing the woman upon her knees and elbows, I endeavored during the intervals of the pains, by introducing my outstretched fingers under the face and chin, to raise the head up out of the pelvis, with a view of bringing down the occiput by external counter-pressure, and thus convert it into a first cephalic presentation. This effort, however, was fruitless, owing to the resistance of the sensitive and irritable uterus. So far as could be ascertained, this condition of things had existed the better part of twelve hours without any perceptible change. The uterine contractions had wedged the head and upper thorax down into the pelvis to the utmost degree of pressure, and had extinguished all signs of fœtal life.

Without delay I called Dr. Wm. M. Chamberlain to my assistance and counsel. A careful examination enabled him to confirm the diagnosis, and he at once approved the proposition to convert the presentation into a first occipito-anterior, by the method presently to be described, and then to wait for the uterus to accomplish the delivery. The patient was then placed upon her back crosswise of the bed, with her feet resting upon chairs, in the position usually chosen for the employment of the forceps, and Dr. Chamberlain administered chloroform to profound anæsthesia. I then introduced the open right hand along the posterior wall of the vagina till the fingers reached the chin, and then, to give greater mechanical advantage, the hand was closed, and the second row of phalanges and carpal portion of the palm placed against the chin and mouth and face of the child, and firm continuous upward pressure maintained by it, for a period of several minutes, with the result of raising the impacted head so far out of the pelvic cavity that external counter-pressure with the left hand upon the occiput, now felt prominent above the pubes, threw the posterior portion of the head down on to the brim of the pelvis, thus converting it into a vertex presentation. To the best of my judgment, I should say that the chin had reached to within about an inch of the level of the upper strait before the external counter-pressure was employed. This external downward pressure upon the occiput, which effected the final change of presentation, was very moderate indeed; showing that the head must have been well nigh out of the pelvis. Fearing a return of the head to its mal-position, I maintained moderate pressure over the super-pubic region, had the patient placed in bed, and suspended the chloroform. Consciousness returned in about the usual time, and with it the uterine contractions; the head advanced rapidly in the *second vertex* position, and the labor was accomplished in a prompt, easy, and in all respects normal manner, in about half an hour. Still further in evidence that the head must have been about out of the pelvis before its rotation took place, is the fact that it was also turned laterally from one acetabular region to the opposite one, becoming a second vertex presentation instead of the first, as it would have been, if it had remained in the direction of the original position.

It may be well to state that this is an operative procedure requiring first-class muscular endurance, quite as much as any obstetrical operation with which I am acquainted, and I doubt if it can be accomplished without the relaxing and quieting influence of deep anæsthesia. In this case, all paroxysmal muscular resistance on the part of the uterus was perfectly controlled by the chloroform, nor did the pains return till its influence had nearly entirely passed off. The child was full size, estimated to weigh between nine and ten pounds; and there was, therefore, every reason to believe that Nature had exhausted her resources and strength in futile efforts to force it through the pelvis. The amount of tumor above the pubes, and the degree of impaction in an oblique position of the head in this case, convince me that Dr. Hodge's suggestion of rotation in the pelvis was entirely impracticable; and as to any lateral movements, with the view of bringing the chin around under the pubes, Dr. Chamberlain agrees with me, that they also were utterly impracticable. The choice, then, lay between

the violent delivery by forceps—which I apprehended would also have been impracticable—craniotomy, and the proceeding which was practised; and I leave the profession to decide upon the respective advantages and merits of the three.

Had this proceeding been adopted early in the labor, there can be no reasonable doubt that the child would have been saved, for it is not one which inflicts any violence upon any vital part of the child; and even the force necessary to effect the rotation would be trifling in the early stages of the labor, when compared with the impacted state of the head in this case.

Whether the uterus would be always relaxed and quieted by the chloroform, or any other anæsthetic, as it was in this case, may be a matter of well founded doubt; but in my comparatively limited experience, I have always seen uterine action totally suspended by *deep anæsthesia.*

Another fact in this case points to a mechanical impossibility of delivery, viz. the prompt and easy delivery as soon as the presentation was corrected. A shoulder presentation could not have afforded a more striking contrast and change to the possible. The opposing circumstances of force and resistance to which this fœtus was exposed during the prolonged uterine efforts to deliver, may be comprehended by signs upon the cadaver, which Dr. Chamberlain discovered and called my attention to. The neck had been so stretched and bent backwards, that the integument covering the prominence of the thyroid region had given way, producing a considerable laceration in a transverse direction, and the sterno-cleido-mastoid muscles were so stretched as to be apparently destroyed; and indeed the whole neck had the appearance of being very considerably elongated. The upper chest of the child, meeting with resistance at the brim of the pelvis, thus arresting the progress of the body, the adaptability of the head to the shape and size of the pelvic passage, would, as a consequence, throw most of the expulsive force upon it, *elongate it, and push it forward.* The degree of elongation, and the distance to which it would be pushed, must be entirely controlled by the resistance, which in this case was *through the neck.* I have not the least doubt, therefore, that had the neck been severed, delivery would have been accomplished by the uterine efforts alone, first of the head, and secondly of the body of the child.

The woman recovered with remarkable rapidity, and without an untoward symptom, and on the fourth day was found walking about her room.

232 West Thirty-Fourth Street.

THE MEDICAL USE OF ELECTRICITY.

BY

G. M. BEARD, M.D., & A. D. ROCKWELL, M.D.,

OF NEW YORK.

No. 1.

The history of the medical employment of electricity has been marked by many and peculiar disappointments.

It was very natural to infer that an agent at once so mighty and mysterious in its phenomena, should have a great power for good or evil over the human constitution. Hence we find, that after the researches of Galvani had abundantly established the doctrine of the existence of animal electricity, very many enthusiastic observers set themselves to the task of demonstrating the medicinal virtues of this subtle fluid. Their experiments were attended with a measure of success. Aldini, in 1795; Hufeland, in 1798; Alibert, in 1817; and Dr. Mansford, in 1818, clearly established the fact of the remedial powers of static electricity in certain forms of paralysis and epilepsy. The discovery of the induction current by the great Faraday, in 1831, gave a new impetus to the scientific investigations in this department. Matteucci, Du Bois Reymond, Golding Bird, Duchenne, Remak, and more recently, Brown-Séquard, Rosenthal, Meyer, Benedict, and Ziemssen, have all labored diligently in the field of physiological and medical electricity, and have brought many and valuable sheaves with them.

By these investigators, the remedial as well as the physiological effects of electrization have been repeatedly demonstrated. They have proved that, not only in paralysis and epilepsy, but also in cases of debility and impaired nerve energy, electricity is an agent of vast and wondrous powers. And yet, outside of the ranks of these original explorers, there are comparatively few in the profession who have given the subject sufficient heed even to inform themselves as to the diseases for which galvanization or faradization are specially applicable. This apathy of the medical world with regard to the success of experiments that promise so much and so surely for the department of therapeutics, is to be accounted for by a variety of reasons. First of all, electricity, in the various methods in which it is employed, has not fulfilled the general expectation. It has been found to fail utterly in many cases where theoretically it should have achieved the most absolute success; and hence many, disappointed and perhaps disheartened, have illogically concluded that their expectations were not well grounded.

Again, in our country at least, the practical application of this agent has fallen into the hands of uneducated and unscrupulous practitioners, who know little of the human system, or of the science of medicine, and still less of the agent they employ. Empirics and charlatans, versed in no art except that of robbing the unfortunate, have thus far had the field mostly to themselves, and have improved their advantage by filling their own pockets without adding an iota to the world's stock of experience. Whatever valuable truths they may have stumbled upon by their abundant observations are known only to themselves, and are regarded by them merely as tricks of a trade, and in the very nature of things must die with them. Electricity appears to be travelling slowly in the footsteps of all our permanent specialties. Twenty years ago, the treatment of the diseases of women was almost exclusively in the hands of ignorant and unprincipled outsiders; gynecology is now one of the most honored and useful departments of science. It is but fifteen years since oculists were linked with contempt in the speech of all who desired to be regarded as authority in medical etiquette; to call oneself a specialist for the eye was a plea of guilty to the grossest ignorance and fraud.

Ten years ago, the diseased throats and ears of the country were at the mercy of a crowd of the most rapacious sharpers that ever amassed fortunes out of human suffering and credulity; ten years hence, laryngoscopists and aurists will stand on the same platform with oculists and gynecologists.

It is the duty, and it should be the delight, of scientific men, to wrest the medical employment of electricity from the hands of these selfish harpies, and accord to it that honor to which its merits justly entitle it. At the present time medical practitioners of all grades are not unwilling to recommend electricity in certain cases of paralysis, that will neither yield to internal medication nor get well in spite of it; but they usually allow their

patients to use some kind of apparatus at home, or else content themselves with two or three imperfect applications under their own eyes. The results in such cases are almost always unsatisfactory. It could not, indeed, be otherwise. In this way, more than in any other, electricity has been wounded in the homes of its friends. To one case that is cured or relieved by such slipshod procedures, ten are either made worse, or else so little benefited that they cast their batteries aside, and ever afterwards declare that electricity is a humbug. The truth is, that there is no more sense or reason in allowing patients to make their own applications of the electric current, than there would be in intrusting them with the responsibility of cutting their own veins, or operating on their own ears and eyes. In three important particulars we are apt to mistake the employment of electricity. 1. By neglecting to make just discrimination in regard to the types and phases of disease that are found to yield most readily and surely to this method of treatment. 2. By intrusting the details of the applications to the patients themselves, or some of th ir non-professional attendants. 3. By not making the applications with sufficient thoroughness and persistence.

Our attention having been called to this subject for some time past, we have found that the range of diseases amenable to this form of treatment is much wider than we had ever supposed. We have found that faradization, or the use of the secondary current, is especially indicated in cases of indigestion in all its myriad shapes; in nervous derangements, when they take the form of chorea, epilepsy, neuralgia, or hypochondriasis; and in general debility and anæmia, dependent on any cause except pulmonary tuberculosis. In our experiments thus far we have made use of Smee's battery as manufactured by Kidder of this city, and we have employed in most cases only the secondary current. It is very far from being a fixed fact of medical science that the primary current is capable of succeeding when the secondary fails; but, if it be used at all, it is necessary to obtain the combined strength of a number of elements. The primary current of the battery we use is too weak to be of any special service in ordinary cases, and we have never secured from it any results that could not have been obtained just as surely, and far more rapidly, by faradization. Stöhrer's large battery, consisting of twenty-four or thirty-two elements, is a most excellent instrument, and is much employed by Ziemssen, Rosenthal, and other German investigators.

Three different methods of applying electricity have been recommended by Duchenne; by solid metallic electrodes, metallic brushes, and the hand.

Of these methods we much prefer the latter.

No instrument that human skill shall devise can ever equal the hand in flexibility and power of adaptation. If the feet of the patient be placed on a sheet of copper to which the negative pole is attached, the operator, holding the positive pole in one hand, can with the other readily manipulate the parts desired to be affected, and by increasing or diminishing his grasp of the sponge, can modify the strength of the application without disturbing his apparatus.

Used in this way, the current must pass through the body of the operator. The first essays of those who may employ electricity through their own persons, must always be unsatisfactory. They will find that they can bear only a very feeble current, or at least one not strong enough to affect any but the weakest patients, or the most sensitive localities. But practice is everything here, as in the use of all other appliances of medicine. According to our observation and experience, the system appears to become accustomed to the powerful electric stream, just as it becomes accustomed to the use of tobacco, alcohol, opium, hasheesh, or coca; with this difference, that its effects are, if anything, positively beneficial.

Dr. Garratt, of Boston (whose abundant opportunities for observation and varied practical experience in the medical employment of electricity, entitle his views to more consideration than those who have attempted to wade through the verbose and mystic rhetoric of his recent work will be willing to accord to him), advises "that the operator use the same hand that holds the electrode, so as to prevent the passage of so high an induction current through his own person, which is thus to himself highly injurious and unsafe to be long continued or often repeated."

It would be very natural to infer that an agent so potent in the cure of disease must be prejudicial to health when used in large excess, for such is found to be the case with nearly all the prominent articles of the materia medica.

It is on this probability that Dr. Garratt bases his words of warning; but the facts are against him. Obstinate experience will not wheel into line at the command of any scientific theory, however consistent or plausible.

We have now been employing faradization through our own persons for some time, and the effects have thus far been either negative or beneficial.

We have both enjoyed our average health since we began to use the agent, and both have observed a marked development of the strength and size of the muscles of the arm. Wm. Miller, of this city, a man of no special medical education, but of the utmost reliability, and thoroughly experienced in the practical application of the faradaic current, informs us that for the past thirty-five years he has allowed the stream to pass through his own body on an average about five hours each day. By mathematical computation, then, it appears that a powerful induced current of electricity has been passing through him for about seven years of his life. Up to the present time, his general health has been excellent, has indeed improved under the mighty stimulus, and he has suffered from no disease that can even be remotely ascribed to electricity. It is safe to say that no parallel instance can be found in either hemisphere.

Our experience thus far seems to have taught us three important facts.

1. Faradization is a *tonic* of vast and varied powers, and it is chiefly through its tonic effects that it so rapidly and so surely benefits so many chronic asthenic diseases. It almost uniformly relieves chorea, dyspepsia, jaundice, constipation, neuralgia, and chronic rheumatism; also, anæmia, when dependent on functional nervous derangement; and when faithfully and persistently employed, it not unfrequently works a permanent cure. Whether these tonic effects of faradization are the result of its mechanical action, or of some subtile nerve power that it mysteriously imparts to the system, or of both combined, we are of course unable to say. Nor is the question a vital one, however interesting it may be to the inquiring spirit of science.

The operators of the Atlantic cable inform us that enough electricity can be generated in a vessel no larger than a gun cap, to send a message from continent to continent, and they are ready to confess that they know as little of the nature of this agent as they did when Morse first planned the line to Washington.

Precisely the same principle holds good in the medical employment of electricity. Our ignorance of the rationale of its workings is no bar to our progress in the knowledge of its effects.

2. To gain satisfactory results from faradization in long standing cases of debility from whatever cause, the

applications must be properly made and thoroughly persisted in. After the pendulum has been swinging for years in one direction, it does not make the return beat in an instant.

In employing electricity, just as in the use of medicaments generally, the time required to complete a cure must bear some proportion to the duration of the malady.

3. For the successful employment of electricity in the various diseases for which it is applicable, there is need of much more skill, patience, and experience, than is commonly supposed. It cannot be too often repeated, line upon line, and precept upon precept, that no specialty in science, however restricted may be its scope, can be thoroughly mastered without a good measure of skill, energy, and patience. And in regard to this very humble department of electricity, in the selection and care of the apparatus, in the wise discrimination between the cases which are and those which are not amenable to this method of treatment, in the acquiring of the requisite facility and effectiveness of application—in the entire mastering of the whole subject, there is as wide a range for the exercise of scientific genius and diligence, and as imperious a necessity for large and varied experience, as in any other department of therapeutics.

CLINICAL THERMOMETRY.

By E. SEGUIN, M.D.,

NEW YORK.

A few words on vital thermometry will help us to understand the range of clinical thermometry.

John Davy's name will remain intimately connected with the origin of animal and human thermometry. His observations, made upon many men and animals, were carried on in Europe, Asia, and Africa, with a small pocket thermometer, and a strong passion for his undertaking. The results of his experiments were very imperfect, owing to his applying the instrument under the tongue, where the temperature is constantly changed by the current of air. Nevertheless, Davy's observations determined the difference between warm and cold blooded animals; the former whose physiological temperature never falls below 96.5° F.; and the latter, whose heat never rises above 82.5° F., and may fall as low as 74° F.; thus putting an impassable barrier of at least 14 degrees between the two classes of animals. This is due to Davy (1803).

Though in common with others he made also many pathological observations with the thermometer, they had no clinical import, because they were not based upon a correct physiological standard. It is not out of place in this connexion to relate the following anecdote.

The little thermometer of Davy once became famous for having accomplished a miracle, which was as follows: Doctors Beddoes, Coleridge, and Davy, had undertaken to cure a desperate case of rheumatism by some new remedy; and previous to giving it, Dr. Davy, according to his irrepressible habit, wanted to ascertain the temperature of the patient. But no sooner was the thermometer between the patient's teeth than he exclaimed "that the instrument was operating," and that he felt better. The physicians, in presence of such a curious instance of moral action, did not administer their drug, but continued the application of the instrument, with the effect of loosening the stiffened limbs and restoring the cripple to active life in a fortnight.

After John Davy, French physicians seemed to have taken up the question of animal heat. To Brechet, and Drs. Becquerel and Jules Seguin (the last-named submitting himself to tedious and painful experiments), belong the honor of having established with their thermo-electrical apparatus, the standard of human physiological temperature (98.5 F.), which external agencies can make to vary but a few tenths of a degree more or less. True, Brechet and his then (1838) young associates, left to subsequent observers the task of finding out the second term of the problem; viz. That any greater deviation above or below that standard, testified to inward anomaly or disease.

After these, further experiments upon human temperature were made by the Germans. Here, Wunderlich appears with his half-million of clinical observations, as the founder of clinical thermometry with Traube, of Berlin, L. Thomas, Uhle, etc. The German school took the discovery of Brechet as the basis of Physiological Thermometry.

The normal temperature of the human body at completely sheltered parts of its surface, amounts to 98.5 Fahrenheit.

The average variations of a few tenths announced by Brechet, and verified by the numerous observations of Professor Traube, are as follows:

98.24°	Fahr.,	7 A. M.
98.69	Fahr.,	10 "
98.65	Fahr.,	1 P. M.
98.78	Fahr.,	5 "
98.24	Fahr.,	7 "

The following note was not written with the presumption that any physician need be taught what he has certainly learned; but because if some of the figures here given have been forgotten through years of arduous practice, it would take quite a time to search for them in several books, which even are not always at hand.

The thermometers mostly in use are those of Celsius (or centigrade), of Fahrenheit, and Reaumur. The first and the third have the same fixed points—congelation and ebullition of water. But the interval is divided in hundredths in the centigrade, and in eightieths in Reaumur. The instrument of Fahrenheit takes its inferior point lower—at the temperature of a mixture of snow and muriate of ammonia—and its upper point is at boiling water as in the two others; the interval being divided into 212°; the point of melting ice, or zero, in the two other thermometers corresponding with 32° in Fahrenheit.

To convert the degrees of Fahrenheit into those of Reaumur, subtract 32, multiply the rest by 4, and divide the product by 9.

To convert the degrees of Reaumur into those of Fahrenheit, multiply by 9, divide the product by 4, and add 32.

To convert Fahrenheit's degrees into centigrade, subtract 32, multiply by 5, and divide by 9.

To convert centigrade degrees into Fahrenheit, multiply by 9, divide the product by 5, and add 32.

The reduction of negative degrees, or those below zero of one scale into those of another scale, is effected in the same way. For instance, to convert 15° C. into degrees Fahr. we have $15 \times 9\text{-}5 + 32 = -27 + 32 = +5$ F.

TABLE OF CONCORDANCE OF THE THREE THERMOMETERS.

Centigrade.	Reaum.	Fahr.	Centigr.	Reaum.	Fahr.
— 20°	— 16°	— 4°	+ 55°	+ 44°	131°
15	12	+ 5	60	48	140
10	8	14	65	52	149
5	5	23	70	56	153
0	0	32	75	60	167
+ 5	+ 4	41	80	64	176
10	8	50	85	68	185
15	12	59	90	72	194
20	16	68	95	76	203
25	20	77	100	80	212
30	24	86	105	84	221
35	28	95	110	88	230
40	32	104	115	92	239
45	36	113	120	96	248
50	40	122			

For finer divisions see the metastatic thermometer of Walferdin, upon which the two-hundredth part of a C. degree can be read.

PATHOLOGICAL THERMOMETRY.

What does Pathological Thermometry teach us?

1st. A rise in the thermometer above 99° F., is an index of the existence of fever.

2d. A fall under 97.3° F., is the index of the presence of a devitalizing agency, such as that at work in cholera.

3d. An elevation of the pathological temperature in the evening, is the rule in the period of pyrexia.

(There are febrile states in which, on the contrary, exacerbations occur in the morning.)

4th. A decrease in the temperature in the evening, is the rule in the period of *defervescence*, and indicates recovery.

5th. An increase of the same precedes, by several hours, the occurrence of fever; that is to say, long before the pulse could tell it.

6th. A sudden increase in the previous uniform or descendent course of the temperature, portends some unexpected complication or intercurrent disease.

7th. Each regular disease is thus shown to run in two periods; one of increase, marked by *effervescence* (ebullition of Sydenham), or elevation of temperature; the other of decrease, marked by *defervescence*, or abatement of temperature.

8th. When cure is to take place, *effervescence* goes on steadily to what may be termed its pathological height, in each disease.

9th. *Defervescence* follows *effervescence*, with the same regularity, till the temperature of the body has reached the physiological standard, after passing in a more or less marked manner through morning and evening oscillations.

10th. When cure is not to take place, the *effervescence* is more protracted, or attains higher degrees; or the *defervescence*, instead of presenting a gradual falling off to the physiological standard, falls suddenly below it, and terminal coldness soon closes the record.

If we could deviate from our immediate subject, which refers particularly to the use of the thermometer in diagnosis, we might insist with advantage upon its value as a means of estimating the effects of remedies, and controlling therapeutics. Dr. W. H. Draper says in this respect: "From my own experience in the use of the instrument, I am convinced that it will furnish one of the best tests, perhaps the best that we can have, in the administration of alcoholic stimulants in febrile conditions. We have had occasion to observe the utility of the instrument for this purpose at the N. Y. Hospital." Thus are confirmed the early previsions of Davy and his compeers, who lacked only the fundamental point (98.5°, of Brechet and his disciples), to introduce thermometrical positivism as the *mètre* (measurer) of therapeutic action of medicines. Indeed, the thermometer is already a medical power; and, like all powers, nobody knows to-day to what use it may be adapted to-morrow.

The following are the propositions established lastly by Dr. T. A. Compton, of Dublin, "*Temperature in Acute Disease*," London, 1860.

1st. That a continued daily temperature of 99° Fahr., and upwards, indicates an unhealthy condition, and occurs in every case of acute disease. As I have never met with one case in which such a temperature was present, under normal conditions, in a healthy adult, and as every case of the two hundred taken exhibits this state of temperature, the proposition may be considered to be proved.

2d. That any one observation of a very high temperature (such as 105° Fah.), in any case in which the general symptoms do not appear of any particular severity, should lead to a very attentive re-examination, and suggest a very careful watching, especially if occurring in a non-diagnosed case; such a temperature being present only in severe forms of any disease.

3d. That the thermometer is of great use, as a means of diagnosis, in those cases, which frequently present themselves, of general *malaise*, often accompanied by a history of rigors, loss of sleep, etc.; such symptoms being due either to the commencement of some acute disease, or merely to some gastric or uterine disturbance of a temporary character.

4th. That the temperature in every disease has a tendency to run a peculiar course, and has a certain range of altitude, a knowledge of which course and range is of great value as an assistance to us in diagnosis and prognosis.

5th. From the last proposition it follows, that the same altitude of the thermometer attained at one period of any disease is not of the same importance as the same height reached at another time in the same disease.

6th. That although, in all diseases, a high range of temperature generally indicates a severe case, with a slow convalescence, and a low range usually occurs in a mild case, and is followed by a rapid convalescence; yet there is no actual temperature in any disease which necessarily foretells a fatal termination. Thus I have registered 105.6° Fah. in a severe case of typhus ending favorably, 106.3° Fah. in erysipelas, 105.3° in typhoid; and each of these temperatures was the highest I ever took in the respective diseases.

7th. That in the majority of cases a rise of temperature is contemporary with a rise of pulse, but that on the other hand there appears generally to be but little connexion between temperature and frequency of respirations.

8th. That where the temperature and pulse together do not coincide with the general symptoms, the two former may be generally relied on as to the actual state.

9th. That where the temperature and general symptoms agree together, but do not coincide with the state of the pulse, the two former may generally be relied on as to the actual state.

10th. That in those cases in which the pulse and general symptoms remain the same, a moderate fall of temperature on one occasion is not to be relied on; but should such a fall continue in a moderate and gradual manner for some days, and at such a period when a fall was to have been expected, the temperature may then be depended upon. Severe cases of typhus, towards their close, often give examples of this sort.

11th. That in those cases in which the pulse and general symptoms continue the same, being the one frequent and the other severe, a continuous rise of temperature for some days, occurring at a period of disease at which some improvement might generally be expected, is usually the precursor of a fatal termination.

12th. That although it is possible that the state of the temperature alone in acute disease may, perhaps, hereafter prove to be the one safest symptom to rely upon if taken by itself (and I believe it is at present, at least, equal to the state of the pulse, and of greater value than this certainly, if only its frequency be taken into account), yet the temperature must be considered merely as an aid, and all other symptoms must be carefully examined into, as it is on comparison with these that its greatest value is always to be found.

But the indications of pathological thermometry may be expressed more in accordance with the views of Wünderlich, as follows. Thus we would say, again:

1st. The thermometer gives indications of sudden changes in health, and even permits to appreciate their imminence.

2d. It detects latent, though important diseases.

3d. It corrects—in the course of a settled disease—hasty appreciations, and decides doubtful points.

4th. It determines the stage—otherwise inappreciable—of a disease whose previous history is unknown.

5th. It reveals—often timely—complications or changes which may have taken place insidiously or unexpectedly.

6th. It unveils masked fevers;* and points earlier than any other sign to a fatal prognosis. Its opposite indications predict recovery.

7th. It enlarges by an entirely new series of facts our circle of pathological phenomena.

8th. In the diagnosis and prognosis of general diseases, the thermometer, whether alone, or concurrently with the other vital signs, presents the same character of *positivism* evinced by auscultation, percussion, and mensuration, in localized affections.

But clinical thermometry is never practised alone. On the contrary, it is supported by the study of other symptoms, and its indications are mostly collected with those given by the pulse-beats and the breathing; forming in their ensemble and continuity "the record of the three great vital signs."

This triple observation necessitates the formation of a diagram (in itself an important instrument of diagnosis), upon which the rise and fall of the vital signs are not only recorded daily, but connected from morning to night by curves or lines. This triple track of diseases may be seen illustrated in German and English publications, but is in none of them better devised than in the *fac-simile* given below:

Of the three component parts of clinical thermometry, we have explained two, the thermometer and the diagram; it remains to speak of the reading. But who can read thermometry on the diagram if he cannot write it? Here the question is merely practical.

Practically, England has contributed the labors of Aitken on thermometry (vulgarization of German doctrines) and thermometrical observations in fevers and pneumonia (clinical records, bearing mostly on the question of *defervescence*), also, of S. Ringer, "on the temperature of the body, as a means of diagnosis in phthisis and tuberculosis," accompanied by eight diagrams, showing the average heat in these affections to be higher, by several degrees, than the physiological standard, 98.5° F.

Already the part taken by American physicians in this new movement is not inconsiderable. Thermometry was introduced late in 1865 in the New York, and later in the Bellevue Hospital (and likely in others that we ignore). Dr. William H. Draper had his own diagram of the vital signs appended to the head of the beds of his patients in the first-named institution; and Professor Austin Flint uses in Bellevue the diagram of Dr. Da Costa. Several articles on thermometry have been published by the medical press. One (already referred to), in the *Chicago Medical Journal* of May last; and another, by Dr. Flint, in the New York *Medical Journal* for November. Every sign seems to point to an early generalization of thermometry in hospital and private American practice.

It has been said, against the use of the thermometer, that it takes too much time—more time than a practitioner can afford to bestow upon a single case. The objection is grave, but, happily, unfounded. "A sensitive thermometer, placed in the axilla, will, if there is consderable elevation of temperature, rise above the normal degree of heat within the first minute, and will exhibit the actual temperature in five; but if it is warmed in the hand before applying, the indication may be obtained in one or two minutes."—(Wünderlich, *On the Use of the Thermometer in Private Practice.*) This is the result of the experience of the master with very delicate thermometers.

* In French, *fièvres larvées*; so specific an expression, that it would be very appropriate in English also.

Blank Diagram of the

RECORD OF VITAL SIGNS.

DATE, NAME, DISEASE,

DAYS OF DISEASE.

ME | ME | ME | ME | ME | ME | ME | ME | ME | ME | ME | ME | ME | ME | ME | ME | ME | ME

TEMPERATURE. (FAHRENHEIT'S SCALE.)

110° 109° 108° 107° 106° 105° 104° 103° 102° 101° 100° 99° 98° 97° 96° 95°

PULSE-BEATS PER MINUTE.

150 140 130 120 110 100 90 80 70 60

RESPIRATIONS PER MINUTE.

50 45 40 35 30 25 20 15

Specimen Diagram of the

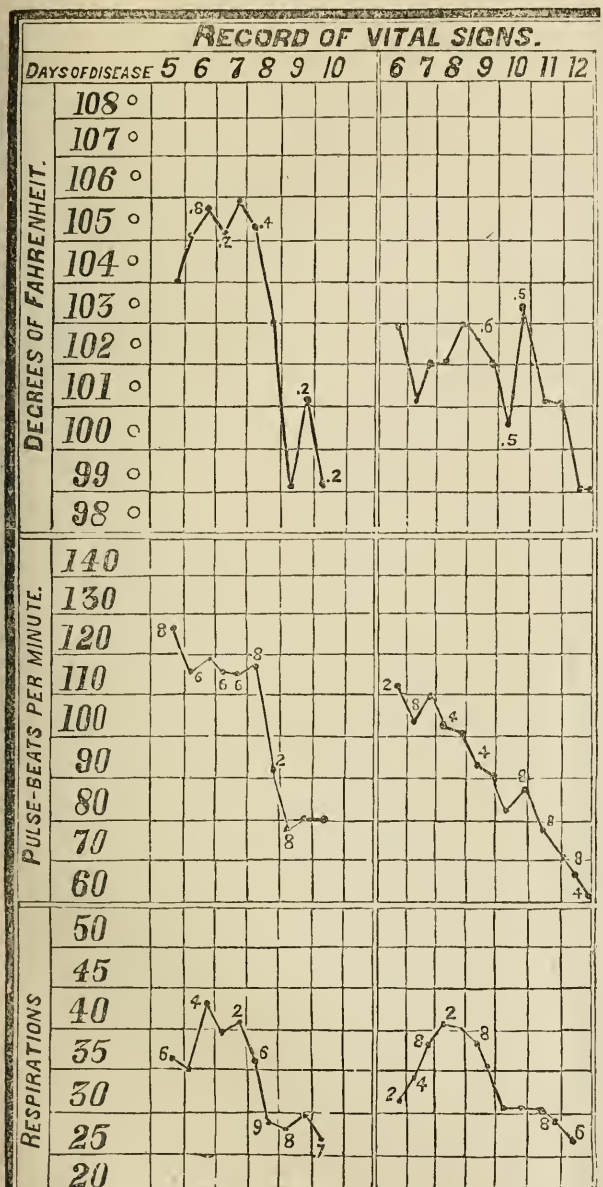


Diagram illustrating two cases of pneumonia, taken from the *Chicago Medical Journal* for May, 1866; article on "The Use of the Thermometer in Clinical Medicine," by Edward C. Seguin, M.D., New York.

Now let us see what is the result of the experience of the Staff of the New York Hospital, operating with the ordinary thermometer to be found in this country. (The answer to this question will also give the most perfect description of the mode of using the thermometer.) "The bulb is to be inserted in the axilla, just beneath the fold of the pectoralis major muscle, not too deeply; the forearm of that side carried across the chest, and the elbow secured by an assistant, or by the patient's other hand. It is left *in situ*, carefully isolated from all clothing, and in perfect contact with the skin, for eight or even ten minutes, being looked at three or four times, the last two determining whether the column of mercury has ceased to rise. The degree (and fractions) are then read off and registered. While waiting, the physician has time to count and record the pulse and respiration, and even to proceed with many other points of investigation."—*Chicago Medical Journal, May*, 1866.

Where is the physician who cannot give to one patient the five or ten minutes necessary to obtain the full rise of mercury in a thermometer? And who, after reading these few graphic lines, cannot use the thermometer at the bedside?

Thus the thermometer is the instrument of precision by which human heat is measured, as the watch is another with which the pulse-beats are counted. Any physician who can practise without a watch may think that he can diagnosticate without a thermometer. But, like other men, physicians, to do delicate work, need mathematical instruments, meters, compasses, lenses, etc, so as to embrace in the sphere of their judgment phenomena unsuspected by the unaided senses.

Having paid a full tribute to the virtues of the thermometer, we may now refer to what it has not done yet, and is expected to do.

It answers very well to measure the general temperature of the body, taken at completely sheltered places; but we must acknowledge that it is not fitted to measure the abnormal temperature of local inflammation upon open surfaces. It would be often desirable that an excess of local heat might be compared, at its different stages, with the normal heat of surrounding healthy parts; and we do not doubt that some mathematical genius will yet devise a kind of thermometer whose broad and yielding bulb shall adapt itself to any surface of the body; at the same time that its superstructure shall be isolated from atmospheric influence. What mankind needs man finds.

And lastly, so far, clinical thermometry has been studied more in its concordance than in its discordance with the other vital signs, pulse-beats and breathing. From this concordance very interesting conclusions have been drawn, and even diseases are recognised (read) by German students, by simply looking at diagrams. But it may be already affirmed that when the discordances of the vital signs among themselves shall have been studied as well, many new and useful conclusions will be arrived at, and symptoms of diseases already obscure will be evinced.

Let us borrow our last word on the subject from Wünderlich himself:

"The thermometer is indispensable for the exact observation of fever patients. Had we been accustomed to its use, history of diseases, unaccompanied by continuous thermometrical observations, would seem as defective as would reports on diseases of the lungs, heart, spleen, or liver, without indications of the physical signs; affections of the brain, unaccompanied by accounts of psychical function; and maladies of the intestinal canal, in which no mention is made of the alvine discharges. Perhaps some may complain of the institution of these observations as a new burden, just as was said of the stethoscope and pleximeter. But this must be got over; and the time is not distant when no physician will venture to pronounce upon a febrile disease without the application of the thermometer, etc."—(Ib. *on the Employment of the Thermometer at the Bedside.*)

Contributions to the Charities of Boston, Mass.—The charities of Boston received last year the amount of $15,000,000 by bequests, subscriptions, and State aid.

Original Lectures.

LECTURES ON PUERPERAL CONVULSIONS

Delivered in Chicago Medical College,

By W. H. BYFORD, A.M., M.D.,

prof. of obstetrics, etc.

Lecture II.

The first thing that attracts our attention in pregnant women, and leads us to suspect uræmia, is œdema. When this symptom is confined to the lower extremities it has not much significance, merely indicating pressure upon the nervous trunks leading through the pelvis from below; but when, with or without this, there is dropsical puffiness of the hands, face, arms, cellular tissue over the chest, hips, back, or any other portion of the upper parts of the person, we ought at once to suspect that the peculiar thin condition of the blood is caused by a loss of albumen. The œdema of uræmia, or rather albuminuria, in pregnancy, is not often either general or excessive. The hand becomes swollen more than ordinary, or the face. Sometimes the extent of the œdema is small, and it makes its appearance in one place for a short time, subsides, and appears in another. We may, for instance, find cases where, a part of the day, one *side* of the face swells up, and another part of the day one arm and the face is relieved. With this symptom the patient is ordinarily unusually nervous. She has disturbed and dreamy sleep, startings and twitchings, neuralgic pains, headache, etc. There is often, too, indigestion, pain in the stomach, vomiting, and more or less febrile disturbance, pain in the loins, mental depression, and sometimes mental hallucinations. The bowels are constipated, the skin torpid, and the secretion of urine scanty and high colored. The tongue is loaded with a whitish yellow coating, the saliva abundant and offensive, causing almost a constant bad taste in the mouth, and disgust for food. Although these symptoms are pretty uniformly present, and sufficiently prominent to excite the attention of the patient and physician, yet there are instances in which they are so slight as not to attract notice. I think the œdema will scarcely ever fail to show itself. Since my attention has been turned to the fact, I have not known convulsions to occur without it. The measure of its extent and duration has but little to do with the intensity and duration of the attack. It often occurs without convulsions, and it should be remembered that the quantity of effusion is only a measure of the extent of attenuation and not intoxication of the blood. Other causes may so deteriorate the process of hæmatosis as to thin the blood very materially, while the function of the kidneys is not much if any disturbed, when this symptom will be greater in proportion than the results. All this is intended to show that although an invaluable, it is not an infallible symptom indicating the presence of uræmia.

If the urine is tested in these cases, it will be found holding albumen in solution, and the relative quantity of albumen will indicate with some degree of accuracy the imminence of danger of an attack. An error in this respect may be very readily committed by examining the urine voided at different times in the day. The first in the morning is apt to be the richest in quantity. The more fluid the patient takes, the more dilute the solution. Perhaps, upon the whole, the best way is to save the whole amount discharged for twenty-four hours, and test portions of this as a whole. How long these premonitory symptoms precede the convulsive attack depends upon a great variety of circumstances, many of which are entirely inappreciable, and vary in duration from a few days to several weeks.

The paroxysm is sometimes preceded, for some hours or but a few moments, by more marked and obvious phenomena. One patient whom I attended saw a bright light for several minutes before the first paroxysm, and described its peculiarities. Blindness is often complained of. Double vision, half vision, intolerance of light, deafness, great sensitiveness to sound, and various versatile delusions, not unfrequently precede the convulsions. Unusual motions of one extremity, or numbness of it, a rolling or inability to direct the movement of the eyes, and occasionally an aura not unlike epileptic warning begins in some part, and spreads towards the head or epigastrium. At other times the paroxysm bursts upon the victim with a suddenness as unexpected as alarming to the attendants. In whatever manner it may be initiated, the first general condition is that of great muscular tension; the head is slowly drawn back, and often to one side, the eyes and mouth are opened widely, the hands are clenched and drawn closely and forcibly up against the chest, the legs are stretched straight downwards or slightly backwards, the feet are extended until almost upon a line with the limbs, the muscles of the abdomen, chest, and back, become rigid, and generally extend the body somewhat backwards. This general rigid condition of the muscles is maintained for a few seconds, during which time the tongue is protruded beyond the teeth, sometimes projected very much, the eyes are closed, and the jaws brought together suddenly, wounding the tongue; the muscles of the face and extremities suddenly relax, and as suddenly contract so repeatedly, that convulsive contortions of the face present every phase of ludicrous grimace, while the limbs and back heave and throw the body about in every direction, and cause it to writhe and contort in every conceivable manner. One remarkable feature distinguishing this and other epileptic convulsions from most other forms of irregular muscular movements is, that the motion is symmetrical and synchronous in the two halves of the body. The two arms are moved in the same manner at the same time; the two legs, the two sides of the face, keep time and measure with each other. As the paroxysm draws to a close, the period of relaxation becomes longer, and the length of duration of the contraction shorter, until the relaxation is complete and universal, when the whole body and limbs assume a posture of helpless and unconscious repose. Although this relaxation in most instances is confined to the voluntary muscles, sometimes the sphincters relax, and the urine and fæces escape from their receptacles without the knowledge of the patient. During the early part of the paroxysm, the air is expelled from the lungs with great force until the chest is as nearly as possible empty of it; and during the whole of the convulsion there is but very little air admitted, sometimes none at all. At the conclusion, and with the general relaxation, the rigidity of the thoracic and abdominal muscles gives way, and allows the air to enter into the lungs rapidly and in large quantities. The large amount of air thus admitted during the deep inspiration is expelled with a hissing noise through the teeth and mouth partly or wholly closed, sending the saliva, generally colored with blood, which flows from the wounded tongue, copiously over the person of the patient and the bed. This sibilant and deep respiration continues for a time, and gradually gives place to more calm, and, after a while, natural breathing. A circumstance of great interest to the observer is the change of color noticed in the face, so obvious during the paroxysm. At the commencement of the paroxysm, the face is natural in color, or perhaps pale; during the

fit it becomes turgid with blood, and red in color; soon the redness becomes dusky, afterwards crimson, and finally very dark purple. The color is greatest at the time of the solution of the paroxysm, and passes slowly off after the respiration becomes good. I need no inform the student that this change of color depends upon the highly carbonized state of the blood circulating in the capillaries of the skin; and we have but to reflect that the blood circulating in the nervous centres is in the same condition, to understand the cause of the solution of the paroxysm. The blood surcharged with carbon, circulating in the brain and spinal cord, induces a true carbonic anæsthesia, hence the entire relaxation of the muscles, and the coma that succeeds the paroxysm; when the blood is decarbonized and re-oxygenated, the coma subsides, the irritability returns, and the paroxysm, after a greater or less length of time, is repeated. Marshall Hall tells us that the glottis is closed as the first step in all these epileptiform convulsions, and looks upon it as the initiatory if not the causing condition of them. Whether this is the case or not, the state of the thoracic and abdominal muscles renders perfect respiration impracticable, and the cessation of respiration ought to be regarded as the method adopted by nature of resolving and shortening the paroxysms, and serves as a basis on which to found rational practice. The state of the pulse cannot be ascertained during a paroxysm, but after its subsidence it is generally slow. The duration of a paroxysm is from half a minute or a few seconds only to several minutes. The more violent and universal the muscular action, the shorter the time of duration.

This description of the phenomena of a convulsive fit is applicable to the first or few first only, for as they recur, some of the symptoms become more intense and somewhat changed in appearance. The color of the face is darker in the first few paroxysms, and the stupor is of very short duration. In fact, after the first paroxysm, it is more like perfect relaxation than stupor, the breathing is seldom stertorous, and hissing and spirting but a short time. After each convulsion, there is more and more marked torpor, until it becomes profound and prolonged coma. The patient does not arouse to consciousness, the eyes become turgid and continue half open, the inferior maxillary falls and leaves the mouth wide open, the tongue is swollen until it seems to fill the mouth and falls back upon the glottis, and the whole face is swollen and injected. The respiratory murmur, at first clear and complete all over the chest, soon becomes masked by the moist râle, and after a time a coarse mucous rhonchus obscures all other sounds, the breathing is more rapid, the pulse accelerated, and the general powers more prostrate, until the respiration becomes gasping, the pulse is very rapid, and the skin covered with copious thin perspiration, and the patient expires; or the coma is more profound, the pulse slower and the extremities cold, respiration less frequent and perfect, until the patient, after a longer or shorter struggle, expires. In the intervals, at first, there is apt to be restlessness, even where the patient is unconscious, the reflex sensitiveness is quite marked, the patient will move her limbs when touched, the features become distorted when the skin on the face is lightly brushed; but after the convulsions have continued for some hours, this passes off, and there is no reflex sensitiveness perceptible. This *interparoxysmal coma is the result of cerebral congestion*, and is very different from the anæsthetic condition which resolves the paroxysm early in the case. As the case grows worse, the anæsthesia runs into and is complicated with coma; but the attentive observer will be able to see the difference throughout the whole progress of the disease. It is not difficult to understand how the coma and difficult respiration should result from the effects of the recovering paroxysms. The compression of the abdominal and thoracic cavities expels much blood from the capillaries of their tissues, and presses it into the large venous trunks, and thence into the heart, from which, on account of its accelerated movements, the blood is impelled rapidly and in large quantities into the great arteries; and, as much resistance is made to its entrance into the small arteries of these cavities, there is a larger quantity driven into the brain which does not return through the veins into the chest so readily as usual, on accont of constriction of these by the muscular tension. A temporary congestion of the brain is the effect, and after repeated and prolonged paroxysms the congestion becomes permanent, and great effusion of the serum of the blood is produced. The longer the paroxysms and the more frequent their recurrence, the more rapid and deleterious this effect of them, until apoplectic congestion is set up, and so much damage is done to the brain —and perhaps spinal cord—that it fails in its functions. The lungs are very powerfully compressed during the convulsion, mucus accumulates in the bronchi, while the want of the ordinary sensitiveness of the mucous surfaces prevents, the inconvenience to the respiration from being observed by the reflex nervous centres. This accumulation aids in deteriorating the quality of the blood, and consequently undermining the powers of the system. In all the fatal cases I have observed anything like closely, I have witnessed a distressing degree of dyspnœa from this cause, and could not resist the conviction that the fatal catastrophe was accelerated more by this than any other condition.

The frequency of the paroxysms varies in different cases from a few moments of intervals to many hours, say twelve, and even twenty-four. Sometimes there is marked periodicity in their return—every half hour, every two hours, etc., etc.

Generally, they are preceded in their return by restlessness and other evidences of pain. After the convulsions have continued for a certain length of time, if there is to be a favorable termination, they cease. Sometimes they cease gradually, the intervals becoming longer and the severity less, until they entirely fail to return; but generally they come to a somewhat sudden termination, the last paroxysm being as bad or even worse than any of its predecessors. However this may be, the patient is left in a state of insensibility which lasts a longer or shorter time, according to the damage done to the brain. Consciousness usually returns slowly, the movements receiving intelligent direction, and having some purpose in their object; sounds affect the patient, or she may be induced to move by touch or annoyance of any kind, until she opens her eyes and directs them in a semi-sentient manner, and then falls asleep. This gradual awakening becomes complete in ten or twelve hours, or it may be two or three days. I knew one patient to remain unconscious for six days, and yet completely recover. After recovery is fully effected, the memory of all that occurred during one, and sometimes a number of days prior to the attack, is wholly obliterated. It is a blank in her existence. Puerperal convulsions are said to be followed quite frequently by some other form of puerperal disease. This is not in accordance with my observation. Indeed, I cannot now recall a case where the patient did not recover without further puerperal accident or trouble.

The Expenditures of the New York State Inebriate Asylum from its organization to September 1, 1866, according to a recent report, have been $401,635 29.

Reports of Hospitals.

JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

CLINICS OF PROF. GROSS.

SYPHILITIC FUNGUS OF TESTICLE—CLINICAL REMARKS—DIFFERENTIAL DIAGNOSIS FROM ENCEPHALOID—CASTRATION—RESULT.

Nov. 16, 1866.—Gilbert C——y, æt. thirty-eight, residing in the suburbs of the city, presented himself at the clinic with an enormously swollen scrotum, from which protruded a fetid, ulcerated mass, resembling in appearance encephaloid disease. He stated that his testicle had been affected for eleven months, and attributed the condition to the effect of a heavy lift, in which he strained himself but did not strike the testicle.

Clinical Remarks.—A large fungous mass protrudes from the base of the right testicle, though both organs are involved in the disease, but the right more than the left one. The heavy lifting was probably a mere coincidence, and had nothing at all to do with the production of the disease. There is no material enlargement of the spermatic cord on the right side; it is slightly increased in thickness and in hardness, but there is very little induration or enlargement; nor is there any material enlargement in the left spermatic cord. The left testicle is nearly round, much in shape like that of the ram. The right testicle is enormously enlarged, being, independently of the protruding fungus, fully four times the size of the other one. There is too, apparently, a little fluctuation, caused no doubt by the presence of water in the vaginal tunic of the testicle. The parts are very heavy, but the patient declares that he experiences no pain in them either by night or by day. His sleep is good; his appetite poor; he is well nourished, but he has lost some flesh; he has no fever night or day; chews his tobacco with enjoyment, &c., and therefore, his general health is in good condition. Four years ago he had several venereal sores upon the penis, which remained for three weeks, followed by swelling in the right groin, proceeding to an abscess which discharged of its own accord. He has not had sore throat, nor sore eyes, nor falling of the hair; no ulcers of the skin, nor any enlargements of the bones. Although this man's primary disease has not been followed by any of the ordinary constitutional symptoms of secondary or tertiary syphilis, this disease is beyond all question syphilitic, the specific poison having exploded on the testicle.

The question arises, may not the disease be fungus hæmatodes, encephaloid, or soft cancer? At first sight the suggestion that it was of this character would not be an unlikely one, judging merely from the immense size of the right testicle; but we are at once met by the fact that there is a participation in the disease by the left testicle, which might possibly happen were it encephaloid, but such an occurrence would be exceedingly uncommon. Prof. Gross has seen many cases of encephaloid disease of the testicle, but in no solitary instance was the disease double; it was always strictly confined to one organ. If it were encephaloid disease there would be great enlargement of the corresponding lymphatic ganglions in the groin upon both sides, and especially on the right. There is, however, little or no enlargement here—no more than would result from an ordinary sore. There would be, too, an enormous enlargement of the subcutaneous veins of the testicle, which would be enlarged to the size of the finger, and of a bluish or purplish complexion, an almost pathognomonic symptom of encephaloid in the testicle, as also in the mammary gland. In encephaloid disease, after such ulceration as is here present, we would find marked corresponding enlargement in the spermatic cord.

For these reasons, we exclude encephaloid from the consideration of the diagnosis, and at once the mind reverts to the conclusion that it is syphilitic in its nature.

The case presents an extraordinary amount of swelling. Prof. Gross has never, in a solitary instance, seen an approach to such an enormous magnitude. It must be remembered that there is some accumulation of fluid in the vaginal tunic of the testicle, and the dimensions of the tumor are, therefore, much greater than they would be without this accumulation. A large portion of the testicle is exposed in the protrusion. It is barely probable that we shall be able to save the left testicle by proper treatment. The right testicle must be sacrificed.

The patient was ordered some tr. ferri chloridi in combination with quinine, four times daily, with nutritious diet, in order to brace up the system a little previous to the operation. Latterly, a saturnine lotion was directed with a view to relieve the swelling and reduce the morbid action. To the fungous protrusion a solution of permanganate of potassa was freely applied to prevent contamination of the atmosphere of his room. The discharges from the fungus were thin, sanious, and exceedingly offensive.

Nov. 21.—*Operation.*—The size of the tumor has diminished considerably since last clinic, especially the left testicle. In the operation it will be necessary to remove a large portion of the integument, but not as much as might at first sight be supposed, for, after an operation of this kind, there is a contraction by which what is redundant is often removed. The sound testicle must be held out of the way; the septum between the two organs must not be divided. We must try to prevent hæmorrhage, both primary and secondary. We commence the incision near the external ring, carry the knife down on the inside and on the outside so as to circumscribe the fungous protrusion, liberate the mass from its connections, and finally come in contact with the spermatic cord, which will be separated from the surrounding parts, and then, before dividing it, we shall dissect down upon the artery, grasp the cord with a proper instrument, and then in this way preventing the retraction of the cord, will have free access to the spermatic artery, which is always greatly enlarged in these cases; it will be either tied separately, or an iron wire will be thrown around the entire cord, twisted tight close up to prevent hæmorrhage, and allowed to remain in situ, burying itself as it were, and as it is perfectly innocuous, will do no harm during the remainder of the man's life.

There is always a disposition to hæmorrhage after this operation, owing to the division of the arteries of the scrotum, and, therefore, after tying the vessels, we will allow the wound to remain open for the space of four or five hours, and then bring the parts together by means of long pins, so as to approximate the deeper surfaces of the wound.

After the operation, the mass was found to consist essentially of the degenerated substance of the testicle and epididymis, with a remarkable deposit of a strumous character apparently.

Immediately after the operation one-third grain of morphia was injected hypodermically on the abdomen; and the patient was ordered generous diet with milk punch.

December 8.—Four or five hours after the operation the parts were brought together by four twisted sutures passed deep through the structures so as to approximate the deep tissue of the wound, to prevent hæmorrhage

and promote cicatrization. There was no secondary hæmorrhage whatever, and the parts healed in great measure by the first intention. The spermatic cord had been encircled in a wire ligature, which it was supposed would have remained, but about ten or twelve days after the operation the ligature came off, from ulcerative action probably, and separated without any hæmorrhage or other accident.

The patient looks and feels well, his appetite is good, he has no pain, and his bowels are in good order. The left testicle has greatly diminished in size, there is no tenderness, and the induration is gradually disappearing. The patient has been on the use of the iodide of sodium with the bichloride of mercury, ever since the operation, and has been supplied with nutritious diet. This treatment will be continued for some time longer. The left testicle will be strapped.

Strapping of the testicle is an admirable mode of treatment in the subacute and chronic inflammations of this organ. It was first practised in the early part of the present century in the Pennsylvania Hospital in this city, by the late Dr. Hartshorne. It was afterwards brought more fully under the notice of the profession by Dr. Frick, of Hamburg. It consists in the application of a number of adhesive strips long enough to encircle the testicle, and arranged so as to lap each other successively from above downwards. When both organs exist, the unaffected one is drawn away from the diseased one, the parts having been shaved as a preliminary measure, and the first strap is applied over the epididymis or the lower part of the spermatic cord, and with great firmness, so as to produce a sort of constriction as it were. The next strip envelops the first one about one-third of its width, and thus the application is continued until the whole organ has been thus embraced; and then the base of the tumor is included in a similar manner by arranging the strips vertically. The object of the application is to make firm tight compression, to stimulate the absorbent vessels to the removal of the effused fluids, upon which the enlargement and hardness depends.

This treatment is not applicable to the acute stage of inflammation of the testicle; but as soon as the inflammation assumes a subacute character, or is deprived in great measure of its violence, the treatment comes admirably in play. One great advantage is, that the patient is able to walk about in the pursuits of business or amusement. Striking effects usually follow in the course of a very short time. At the end of twenty-four hours it will become necessary to renew the application, for such is the diminution in bulk by this time, that the testicle frequently slips away from the cap thus made of adhesive plaster. Sometimes, of course, the application is not tolerated, and when this is the case the sooner it is removed the better.

In the subacute stage of orchitis, the result of gonorrhœa, it is an admirable plan.

The best width for the strips is three-fourths of an inch.

December 12.—The testicle has gone down wonderfully as the result of the strapping. There is no pain whatever in the organ. Patient is gaining flesh, and feels well.

December 15.—Patient has continued to improve, and has been allowed to go home.

Reopening of the Knoxville, Tenn., Deaf and Dumb Asylum.—The Knoxville (Tenn.) Asylum for the Deaf and Dumb has been reopened after a five years' suspension. It was occupied during the late war as a hospital by both contending forces in succession. As the "Asylum U. S. General Hospital No 1," it achieved no little reputation during the campaign in East Tennessee.

Progress of Medical Science.

Variola and the Fœtus in Utero.—Will a child born after the mother has had small-pox and contracted after she has conceived, be liable to contract the disease? Dr. Geo. Mackey, Surgeon-Major (*Madras Quart. Journal Med. Science*), lately met with a case of a child born under the above circumstances. The infant bore no marks of having suffered from small-pox. About two months after its birth, vaccination was attempted, and failed. This case might then have been recorded (vide *British Am. Journal*, February and March, 1861) to prove that the mother having suffered from the disease, the child was consequently protected. I therefore think it worthy of record that on vaccination being repeated some months afterwards it proved successful. I also met lately with another case in an adult born under the above mentioned circumstances, who bears good marks of vaccination performed in infancy, and in whom revaccination has lately been successful.

A Case of Hepatic Abscess.—There occurred a somewhat remarkable case of abscess of the liver in my practice. The lad, some sixteen years old, received an injury from a fall, over the right epigastric region. Some three weeks after, pain, swelling, and other concomitant symptoms ensued. The swelling continued to enlarge for four weeks, pointing most prominently about midway between the umbilicus and anterior superior spinous process of the ilium of the right side. Upon consultation, it was agreed to introduce the trocar, when five pints of pus were drawn off. The canula was left in, stopped up, and daily a quart or more of pus was discharged for two weeks, after which it was gradually lessened in quantity down to a gill, which is the amount now drawn daily. The amount or quantity that has passed through the canula up to the present is not less than nine gallons. The patient has nearly recovered; every function of the body is normal, and is at work. Extreme prostration was present for three weeks, but was successfully treated with tonics, a supporting diet, and perfect quiet in the recumbent position.—*Dr. D. L. Beaver, Trans. Med. Soc. Penn.*, 1866.

The Cause of Color Blindness or Daltonism.—Dr. Montrose A. Pallen, in the course of an article contributed to the *Saint Louis Medical and Surgical Journal*, divides Daltonism into two kinds, viz. *Achromatopsy*, or an insensibility of the eye to colors, and *Dyschromatopsia*, an anæsthesia, or partial insensibility to colors. One is generally, if not always, hereditary, and the other is sometimes acquired, and subjectively symptomatic (spurious and recognised by the ophthalmoscope). He believes that upon the formation of the vitreous body, whose function is the correction of the prismatic refraction, the explanation of the theory of color blindness depends. Hannover's discovery that the vitreous humor is contained in a segmentary membrane which can be discovered "by a careful maceration in chromic acid, to consist of about 180 delicate septa, like the pulp of an orange," seems to have been neglected by all writers on Daltonism. An irregular prismatic refraction, interfering with the passage of rays, in consequence of a disarrangement of the septa, Dr. P. thinks is an hypothesis capable of explaining all the phenomena. He suggests that "a series of experiments might be induced which can overcome the defect, by an arrangement of certain colored glasses operating to make up a deficiency of prismatic refraction."

Remarkable Case of Cerebral Abscess.—Dr. Barlow, before the Cincinnati Academy of Medicine, pre-

sented a specimen of abscess of the right anterior lobe of the brain, and gave the following history of the case:

"Mr. P. suffered for a year with ozœna, accompanied by an offensive discharge. He had also excruciating pains in the frontal region. His friends observed some mental aberration; he lost interest in his business, became loquacious, and passed sleepless nights. Afterwards he fell into a profound coma, lasting many days. His physicians observed a periodicity in his symptoms, as he had chills followed by fever and sweating. Under the use of quinine and cathartics, and inhalations of iodine, he rapidly improved. His ozœna left him, and his mental condition was as perfect as ever. A few weeks ago he fell into a comatose state, and died two days since.

"On autopsy, found the mucous lining of frontal sinuses much thickened by chronic inflammation, caries of the inner table of the frontal bone, and a communication between the sinuses and the cavity of the cranium. A firm band of adhesions, extending through the opening, connected the dura mater with the mucous membrane of the frontal sinus. The right anterior lobe of the brain was much thicker than the left. An abscess was discovered in this lobe, extending from the anterior extremity to the fissure of Sylvius, having a capacity of not less than an ounce.

"It appeared, on inquiry, that Mr. P. had hit his forehead against a door three years ago. The violent cranial neuralgia and ozœna followed some months after the accident. It is remarkable that this patient should have carried an ounce of pus in his brain, and yet appear for months to be in perfect health."—*Cincinnati Lancet and Observer.*

The Immediate Treatment of Stricture of the Urethra.—Mr. Barnard Holt, in a contribution to the *Lancet*, in which he relates several cases successfully treated by his operation, asks

"Does the same success attend the operation in other hands? My reply is that, with all intelligent surgeons, it does; but when surgeons will force a passage with *the dilator* in cases where they cannot introduce *a catheter*, or continue to dilate the strictures to Nos. 5 and 6 or more previous to using it, then unfavorable results must be met with. In the first there is no security that the dilator does not deviate from the urethra; and in the second the stricture is not split, but simply further dilated.

"In conclusion, if surgeons will only exercise one caution, they need have no hesitation in performing the operation: pass a small gum catheter, retain it in the bladder for a few hours, and immediately on its withdrawal introduce the dilator; and, if this is kept in the urethra, there need not be the slightest hesitation in at once *rapidly* thrusting the chosen tube between the blades of the instrument. *I* am always certain the dilator is fairly in the bladder before I use the tube; but if this is not done the result must be a failure, for which I am in no manner responsible."

Removal of a Bit of Stone from the Anterior Chamber after remaining there Fourteen Years.—L., laborer; 22; seen first, June 11, 1866; his right eye is deprived of visual power, to the quantitative perception of light. Patient states that when a child of eight years, amusing himself by throwing stones together, a small bit struck the right eye with great force, it became slightly inflamed, and in a short time vision, except as to the perception of light, was lost.

On oblique illumination of the eye, after the instillation of atropine, a cicatrix was seen 3 min. over the centre of the cornea, about two min. long; the pupil, slightly dilated, is the seat of a pure white opacity, which is slightly striated, and evidently lies immediately on the posterior surface of the capsule, which is slightly wrinkled.

On the upper pupillary margin, close to an adhesion of the iris on the capsule, is a foreign body of a grey color, and of the shape of a small pyramid.

It is easily recognised from its peculiar brilliancy as a fragment of stone. Further examination showed that the foreign body was only slightly attached to the iris, and most probably only rested on the capsule.

On the same day the removal of the fragment was attempted. A linear incision was made on the upper and outer border of the cornea, and the foreign body seized with a simple iris forceps; the bit of stone was removed at the first withdrawal. The prolapsed iris was removed. The wound healed readily, and on the following day the patient counted fingers at two feet distance. This sudden improvement of the visual power was explained by the fact that the opacity of the capsule was limited to the central portion of the lens. The lens itself, on oblique illumination, shows a peculiar quartz-like reflex, and the normal fundus of the eye is with some difficulty recognised through it. This peculiar reflex is caused by a slight folding or wrinkling of the capsule. This wrinkling, as well as the distance of the periphery of the lens from the ciliary processes, allows us to suppose that the lens has become smaller.

The chief point of interest in this case is that, first, this foreign body, without becoming at all encapsuled, had remained so long a time in the eye without irritation; second, that the lens to a certain extent had retained its transparency, although the capsule was opened and a long continuing irritation had operated through this part.—*L. Wecker, Gaz. des Hôp., Aug.*, 1866, *Zehender's Monatsschrift.*

Vaginismus.—Gustav Braun on the Treatment of Vaginismus by Amputation of the Clitoris and Nymphæ.—After describing the symptoms of this variety of disease and a consideration of the cause of the affection, he expresses the opinion that the anomalies of the clitoris, and among these especially the hypertrophy of it, may be able to exert an influence on the existence or the rendering worse of vaginismus, and relates a case observed in his gynacological clinic. First, medicamented and mechanical remedies were used, and since the patient did not cease from her habit of exciting sexual excitement by contact with the genitals, the amputation of the clitoris and of the greater part of the nymphæ was decided upon as the only remedy from which a cure was to be awaited. The patient did not object to the operation, which was performed by the galvano-caustic cutting snare. A microscopic examination showed the portions of clitoris which were excised to consist only of hypertrophied normal tissue elements.

Some months after, patient reported that coitus did not produce the extraordinary excitement which formerly occurred; that she was entirely free from sudden excitements, which were formerly produced by the contact of the clothing, and which were the provocation to masturbation.—*Braun's Jahr Büch. und Med. Wochenschrift.*

A New Instrument for Subcutaneous Injections.—M. Bouillaud lately presented to the Academy of Medicine of Paris an invention of M. Dancet, consisting of a hollow needle adapted to a metallic tube, ending in a small cup covered with an india-rubber membrane. By slight pressure upon the latter the fluid is injected into the areolar tissue, and a simple mechanism within the cup allows of the counting of the drops injected. Another and simpler needle on the same principle may be used for vaccination.—*Buffalo Med. and Surg. Journal.*

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SPECIALTIES AND SPECIALISTS.

VERY much has been said for and against the study of special branches in Medicine, and much is still to be said before the question of its propriety and utility will be settled. The reason why there has not been a better understanding in reference to the matter before this, has been that the opinions which have been expressed on the premises, were biased by too much of a partisan spirit to have any weight, and violent disputes have, in many instances, taken the place of dispassionate reasoning. We never need hope to approach the truth, so long as we take extreme sides, and express a determination not to compromise upon any middle ground. Specialism stands in this position in regard to the views held by the opposing parties, the specialists on one side, and the general practitioner on the other. The fault of non-agreement lies between the two.

One of the greatest mistakes which the specialists have made, is the strenuous effort they as a body have put forth to force their claims upon the profession for support and encouragement, without giving any other apparent reason for such an action than a purely selfish one. They have been too much in a hurry to forestall professional opinion, and have in many instances committed serious offences against propriety, good taste, and kindly feeling, by most pretentious assertions. The profession cannot be expected to listen to aspersions upon their judgment and skill, without imbibing a prejudice against the source from which they spring. The general practitioner is not yet ready to admit the force of that reasoning which culminates in his brethren being styled "the rank and file" of the army medical, while the specialists assume to be the leaders.

In almost every medical society, specialism is brought up as one of the subjects for discussion, and almost always the passage of some committal resolution is engineered by some interested party. The many efforts which are thus constantly being made by these gentlemen to set themselves right before their brethren, and define their position, are of themselves very damaging to their cause. They prove to the mind of every unprejudiced individual, that a claim which requires so many arguments to bolster it, so much rhetoric to impress it, is necessarily faulty. Especially is this so, when such explanations are not as a rule demanded. The very consciousness that the cause is a good one, should deter them from asking the endorsement of any society. Specialists have had no reason to consider themselves outlaws or charlatans; the profession is very willing that they should quietly "work out their own salvation." Had the majority of these gentlemen been content to do this, we should have been much nearer a solution of this question than we now are. If there is a prejudice against specialists on this account, they have no one to blame but themselves.

Whether exclusive specialism is to be of such great benefit to our science as some of its advocates would lead us to believe, is a question which no one can confidently answer; it is a problem which time alone must solve. All are convinced that a concentration of thought upon any one subject inevitably tends to the discovery of new principles, the elucidation of new facts, and the establishment of new plans of action. But can this be applied with advantage to the study of medicine? Can any particular part of the body be studied intelligently and profitably by itself? The specialist who devotes himself exclusively to his branch, and does not look beyond it, makes, it is true, some discoveries, but there is a proportionate danger of magnifying these at the expense of other matter of much greater importance. There are, we believe, very few in the present state of our science, who could thus wrap themselves in their specialty without great danger of drifting into a pernicious transcendentalism.

On the other hand, the extension of our knowledge of the diseases of different organs is so rapid, that it is next to impossible to keep track of all the discoveries that are constantly being made, much less is there opportunity for the general practitioner to examine their respective merits. In order to supply this want of a thorough knowledge of the diseases of the various organs, specialism comes in very opportunely to systematically distribute the labor.

Again, by confining the attention more particularly to one branch, an increased experience is gained by the accumulation of a set of similar cases, and many valuable deductions drawn therefrom, which would almost certainly have been lost if such cases were evenly distributed among different practitioners. There is no mistaking the fact that many very important improvements in treatment have been inaugurated as the result of such extended individual observation.

It is necessary that we should have experts in the different branches of our science; men who should be privileged to decide on those nicer points connected with the treatment of particular affections, which knowledge cannot be expected of the practitioner. This refers principally to those diseases the proper under-

standing of which requires a good deal of patient study. These are the affections which more properly belong to the specialist, and no one should be loath to throw such cases into his hands.

The study of any special branch, if properly carried on, need not interfere with the interests of any practitioner. The physician can treat all the cases which ordinarily come to him without any extra advice. He does not need, in every instance of inflammation of the conjunctiva, to consult an oculist. It is only occasionally, in a peculiarly difficult case, that he may desire counsel. When such advice is needed, he naturally looks to the specialist as the proper person to help him. It is but justice that the person who has labored hard in the study of the diseases of any particular organ, and gone to the expense of costly instruments, and acquired special skill in their use, should be encouraged. The practitioner, did he not give his patient the benefit of an opinion from such a gentleman, would be derelict in his duty.

The arguments which hold good in exclusive specialism, apply to the affections of very few organs, and if we are willing to hand them over to properly qualified men, we can do it without much if any compromise. The larger number of the so-called specialties can, at least for the present, be engrafted upon general practice. In fact, in this respect, it would be desirable for every physician to a certain extent to be a specialist; that is, to take up the study of favorite branches, and give them very particular attention. This is by no means impossible of accomplishment, as numbers of gentlemen in our large cities are specialists in this sense, and are at the same time engaged largely in general practice. These have grown into a specialty by the circumstances attendant upon their ordinary business, and a particular class of affections being studied when the mind was ripened by general experience, make them the best and most reliable of experts.

The report from the governors of the N. Y. Hospital shows that institution, as usual, to be much in arrears. The deficiency of the past year, added to that of former years, makes a total indebtedness of over $100,000. Until within the past five years, this institution received an annuity from the Legislature of $12,500; now, however, it has no resources but its own, and the donations of the governors. For more than seventy years this noble charity has thrown its doors open to the needy poor, and has generously cared for those who were unable to care for themselves. But from present indications it would appear that that time has gone by; that the present indebtedness of the hospital will not allow a further continuance of this practice unless help is obtained from the Legislature in the shape of a handsome annual donation. The governors petitioned last year for such aid as they needed, but their request was not granted. They intend to repeat their solicitation this year. We hope that their efforts will be attended with success. The sum asked for is twenty thousand dollars annually; and if it is luckily obtained, all who are acquainted with the management of the hospital can be assured that it will be well appropriated.

Our attention has been directed by the *Medical Reporter*, of St. Louis, Mo., to certain erroneous statements contained in our impression of Nov. 1, ult., relative to the extent of the mortality in that city from cholera. Although the figures (8,500) seemed to us at that time to have been rather high, we accepted without question the quotation as that of a usually accurate authority. We are happy, however, to find that these figures are an exaggeration, and cheerfully substitute for them Dr. Alleyne's summary, compiled with special reference to the official record. This is as follows: For the weeks ending August 3, 5; August 10, 120; August 17, 754; August 24, 991; August 31, 520; September 7, 495; September 14, 294; September 21, 203; September 28, 81; October 5, 30; October 12, 19; October 19, 6; October 26, 4; November 2, 3; November 9, 2; giving a total for the fifteen weeks of 3,527.

Reviews.

Conservative Surgery as Exhibited in Remedying some of the Mechanical Causes that operate injuriously both in Health and Disease. With Illustrations. By Henry G. Davis, M.D., etc., New York. Appleton & Co. 1867. Pp. 314.

This work opens with some very judicious remarks upon fractures; that portion devoted to the consideration of the differential diagnosis of intracapsular fractures, being especially commendable for a very masterly handling. We would direct attention, as indicative of our author's conservative views, to the passages referring to the dangers of unwarranted efforts in this latter class of fractures, to ascertain "their particular character, direction, and extent." The author conclusively proves that the direction is almost invariably oblique, and that the shortening is too often due to attempts to get crepitus. He therefore maintains that the relations of the wedge-shaped fragment of bone, extending under the insertion of the capsular ligament with its periosteal and ligamentous attachment, ought not to be disturbed, and thereby isolate the head of the femur from the shaft.

The author's views are well known to the profession, and their essential principles in some shape or other have been adopted in the different appliances of orthopædic surgery. Continued elastic extension, which has the effect of elongating the soft tissues, is Dr. Davis's main dependence for the restoration of deformities depending upon contraction, or actual shortening. So much the profession are willing to concede as due to our author's claim of originality; but owing to the wide application of the principle thus discovered, a violent controversy has arisen, with the merits of which a majority of our readers are familiar. That Dr. Davis feels deeply upon the subject, as all are apt when laurels are in danger, we do not doubt; but, notwithstanding all these temptations to indulge in intemperate language, we sincerely protest against the admission of certain passages, to which we need not especially direct the reader's

attention, but which will be readily recognised by their strongly personal character. We think the author might afford to trust to the verdict given by a proper committee of reference not many years ago. We would therefore prefer that all matter of this polemical character be either omitted, or transferred to an appendix.

Dr. Davis, bringing as he does to his specialty a great aptitude for the solution of mechanical problems, takes a high rank as an orthopœdic surgeon, and his very practical contribution to the literature of the subject is both valuable and opportune. We deem it worthy of a place in every physician's library. The style is unpretending, but trenchant, graphic, and, best of all, quite intelligible.

Transactions of the Medical Society of the State of Pennsylvania at its Seventeenth Annual Session, etc. Philadelphia: 1866. Pp. 152.

From the fact that this State Society is established upon a basis somewhat different from similar organizations, in that the various county associations are expected to furnish formal epidemiological and even geological reports, the contributions hardly come within the usual range of criticism.

These reports are, of course, practical and historical without being profound, although in many cases suggestive. The pamphlet as a whole, on account of the sanitary matter scattered throughout its pages, will constitute with us a convenient manual for reference.

A Practical Treatise on Diseases of the Skin, by J. Moore Neligan, M.D., M.R.I.A., etc. Fifth American, from 2d revised and enlarged Dublin edition, by T. W. Belcher, M.A., M.D., Dub.; B.A., M.A., Oxon; Fellow, Censor, Examiner in Materia Medica and Medical Jurisprudence, and in Arts, and Hon. Librarian, King and Queen's College of Physicians in Ireland, etc.

One of the principal merits of this Treatise is its brevity. Dermatology is a department which can be dilated upon *ad infinitum*, for the simple reason that most authors know so little of the subject. They care more to expound their peculiar views concerning classification and such other uninteresting matters, than to give to the reader anything practical. The student desires to know the simplest methods, in the first place, of making a diagnosis, and in the next place, the best means to adopt to produce a cure. The editor of this volume has fallen in somewhat with this latter custom; but in making an addition to the subject of classification, he has been quite considerate. Of the remainder of the work we have nothing beyond unqualified commendation to offer. It is so far the most complete one of its size that has appeared, and for the student there can be none which can compare with it in practical value. All the late discoveries in Dermatology have been duly noticed, and their value justly estimated; in a word, the work is fully up to the times, and is thoroughly stocked with most valuable information. The following among other diseases are for the first time noticed in this book: Rubeola, Scarlatina, Variola, Furunculus, Anthrax, Pustula Maligna, Lepra Hebræorum, Elephantiasis, Morphie, Frambœsia, Morbus Tauricus, Aleppo Evil, Ngerengere, Pellagra, and Morbus Addisonii. The chapter on parasitic diseases is made particularly interesting, and is calculated to give the reader an intelligent insight into this very interesting class of affections. The remarks upon treatment are impartially offered, and we are pleased to add that there is no attempt at hobbying a particular remedy upon the profession. A very notable feature in the work is a copious bibliographical index which, in completeness rivals any other similar one ever published.

Surgical Clinic of La Charité. Lessons upon the Diagnosis and Treatment of Surgical Diseases, delivered in the month of August, 1865, by Professor Velpeau, Membre de l'Institut et de l'Académie Impériale de Médecine. Collected and edited by A. Regnard, interne des Hôpitaux. Reviewed by the Professor. Translated by W. C. B. Fifield, M.D. Boston: James Campbell, 18 Tremont st. 1866. Pp. 103.

A synopsis of the contents of this elegant manual will give our readers the best idea of the importance of the subjects commented upon by the veteran French surgeon. They are: 1, Generalities; 2, Fractures; 3, Affections of the Joints; 4, Inflammations and Abscesses; 5, Affections of the Lymphatic System; 6, Burns and Contusions; 7, Affections of the Genito-Urinary organs; 8, Affections of the Anal Region; 9, Affections of the Eyes; and 10, Statistics of Operations.

The object of the lecturer, who belongs to the rational school of surgery, is to reduce the practice of his art as nearly as possible to first principles, by the rejection of errors rendered sacred by tradition. He not unfrequently surprises us by the simplicity of his expedients for the aid of "nature in disease," and rarely, if ever, fails in making out his case. The statistics which are incorporated in the text, are presented in an interesting manner, and are valuable, not only to the medical jurist, but to the student who desires to be prepared for dangers in store. As a whole, the work is not only instructive but entertaining, and may be regarded as one of our landmarks of minor surgery, upon our skill in which much of our success will be found to depend.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Dec. 5, 1866.

Dr. James Anderson, President, in the Chair.

Dr. Post again introduced Dr. Quinby's patient for the purpose of showing the progress of the case. He remarked that there could here be no arrest to the growth of the leg, since no portion of the tibia or fibula had been removed, and that, as a result of this operation, the patient was not prevented from wearing a boot. The patient then exhibited his control over his movements by walking in different gaits, jumping, etc.

Continuation of the Discussion on Chronic Metritis.

Dr. Kammerer remarked that the discussion of chronic metritis had gone back to the very premises—to wit: whether there was such a disease as chronic metritis or not. He thought that the cause of this variance lay in the fact that pathological anatomy had outstripped clinical observation. He would ask, in considering this topic, whether or not this derangement in nutrition was marked by exudation, a stagnation of the circulation, etc. Hyperæmia was no symptom, since the sexual organs suffered a recurrence of that condition every four weeks. Irritation should certainly not be confounded with inflammation; and regarding Virchow's explanation of the phenomena of inflammation as decidedly the best, he found none willing to claim that the conditions as laid down by that eminent authority were here present. That they were met with in perimetritis with pelvic peritonitis, and in endometritis, he had no doubt; but as far as the body was concerned, he should be more reserved in his opinion. French authors have no doubts of the existence of metritis. Prof. Klob, of Vienna, whose work, published in 1863, has not yet

been translated, who made 1000 autopsies in the General Hospitals, failed to find a single case of genuine metritis. All the changes pointed only to hyperæmia. Entertaining these views, backed as they were by authority so eminent, he could only regard the term chronic metritis, a misnomer. The subjective symptoms of chronic metritis, then, if we may allow the term as a matter of convenience, so far as our clinical observation goes, are derangements of the functions, amenorrhœa, dysmenorrhœa, sterility, etc., while the objective are an enlarged organ, with ulcerations, abrasions, and discolorations. We may very readily make out the size by what is technically known as the double touch, i e. by the use of the sound simultaneously with palpation of the abdomen. The cavity may be found deeper and wider, the organ itself enlarged, which latter is, after all, the only pathognomonic symptom. He would admit, however, that we must not expect to be invariably fortunate in making out the enlargement of the organ, since the thickness of the tegumentary coverings has quite fequently foiled us. He also did not regard a tender as necessarily an inflamed uterus—for a certain amount of hyperæsthesia might be present, without looking towards any very grave disease, since pain of any account would indicate peritonitis or ovaritis. The pathological anatomy of the disease will be found to reveal a morbid condition rather than a morbid process. We may find the muscular fibres hypertrophied and the connective tissue increased in quantity, but even these may constitute merely a quantitative anomaly, and that, too, within the limits of health. The chronic induration resulting from engorgement was due to an increase of the connective tissue at the expense of the muscular fibres; the organ may have an anæmic hue, and may creak under the knife. All this was not inflammation, but merely the result of long-continued congestion or hyperæmia.

He might refer to the two forms of hyperæmia as proper to be borne in mind, while considering the case now in dispute. The arterial form is well typified in menstruation and puerperal fever; while venous congestion is exemplified in those instances where obstacles are offered to the reflux of blood, as in displacements, flexions, adhesions, and the embedment of fibrous tumors within the walls. He conceived that the diverse opinions formed regarding this condition of things might be explained by the fact that not enough stress had been laid upon such complications as peritonitis or its sequelæ of adhesions, latero-versions by the contractions of ligaments, etc. Chronic peritonitis was likewise a frequent complication.

The best remedies within our grasp were antiphlogistics and frequent tepid baths. For the accompanying endometritis, the very first condition was to keep the orifice well dilated for the escape of the secretions, by which the mucous membranes are relieved, and the general condition rendered more comfortable. Thorough dilatation might be effected through the well known agency of bougies and sea-tangle (*laminaria digitata*) or sponge tents. He desired to call attention to two local remedies, which had not yet come into general use. The first of these was *pyroligneous acid*, first introduced to the profession by Dr. Meyer of Berlin, and which was held in high esteem, especially by German practitioners. He would assure those disposed to give this agent a trial, that there was no danger in its use, provided the article were pure. The second remedy was *carbolic acid* in concentrated solution, which might be introduced into the cavity by a brush. No bad results have been known to occur; the only obstacle to its application he knew of, was the presence of acute peritoneal irritation or sub-acute inflammation.

When displacements existed, our only resort was, of course, to adjust them if possible; but all cases of slight hypertrophy he would let alone, unless, perhaps, when the cervix assumed the form of prolapse, he might attack the neck by surgical means, such as by the écraseur or by the electro-caustic method.

When the hyperæmia was due to a general cause,—to cardiac complications or to tuberculosis, but little mitigation of the patient's sufferings need be expected. After all, the only real cure, in his opinion, was effected when senile atrophy ended the woman's parturient history.

Dr. Peaslee said: He had hoped to have listened instead of speaking to-night; but some of the topics which had been discussed, he thought required further elucidation.

He thought that the view he had taken at the previous meeting, of the subject under consideration, was both logical and scientific, and one which could not be successfully opposed. He had without argument admitted the existence of parenchymatous inflammation of the uterus; though he was aware that Bernutz and others doubt if acute parenchymatous inflammation of the unimpregnated uterus ever occurs; and Klob, as Dr. Kammerer has told us, admits that he has never, in all his post-mortem examinations, been able to demonstrate parenchymatous metritis in any form. Neither had he (Dr. P.) discussed the nature of inflammation, since that would have led him too far from his main object. Dr. Kammerer has stated that its most important characteristic is an exudation of the plasma of the blood between the histological elements of the part affected, as all must admit in the present state of general pathology. Dr. P. had simply specified the symptoms recognised by all writers as indicative of inflammation of the parenchyma of the uterus, and admitting its existence where they do exist, he had refused to admit it where they do not. But he had shown that these symptoms do not exist and have not existed at all, in a large majority of all the cases generally included under the term chronic parenchymatous metritis; while they do appear, and then disappear again to recur, in the minority of these cases. He therefore decided that the majority are not cases of metritis at all, while metritis recurred from time to time in the minority of the cases. On further examination he found the former presented the symptoms of chronic congestion merely, while the latter presented the same state with attacks of metritis supervening upon it.

This view had been somewhat earnestly criticised at the last meeting, as he (Dr. P.) hoped it might, since it had been held by him the last fifteen years, and finds constant confirmation in his practice, and he regretted that Dr. Barker could not be present this evening, since he might wish to reply to criticisms which he (Dr. P.) should in turn feel obliged to make.

Alluding to Dr. Barker's division of the cases of chronic metritis into three classes, Dr. P. said he (Dr. B.) had committed the too common error of confounding the effects, or sequelæ, of inflammation with inflammation itself. Dr. Churchill has adopted the same classification (and added two or three classes more); but he so blends acute and chronic metritis in his account of parenchymatous inflammation of the uterus, that one can get no clear idea of the difference between them on the one hand, or between them and induration, or softening, or suppuration on the other. Dr. P. would speak only of the two first classes of cases recognised by Dr. Barker, viz. (1) chronic metritis complicated with indurations; and (2) the same complicated with softening.

Twenty-five years ago (said Dr. P.) it was an axiom

in general pathology that chronic inflammation produces induration or hardening, while acute inflammation produces softening. This statement, however, does not present the facts as they really exist, but merely a simple view of them. In the first place, we must remember that the characteristic element of the inflammatory process is an exudation of the plasma of the blood from the capillary vessels of the part affected into the intercapillary spaces, and among its histological elements. As this is, of course, itself softer than the tissue proper, the whole mass of tissues and plasma thus become softer than the tissues above in their natural state. An immediate effect, then, of inflammation in all cases (acute or chronic) is softening. But this exudation among the tissues may subsequently be disposed of in either of three entirely distinct ways. It may (1) be entirely and promptly reabsorbed, in which case it is customary to say that the inflammation terminates in resolution; or (2) it may become organized, and thus be permanently blended with the tissues of the part, and in this case the whole mass of tissue and neoplasma together, will (in the case of a soft solid) be after a time harder than before, and we say *induration* has taken place; or (3) the exuded plasma may degenerate into pus, and be thrown out from the part, when we say *suppuration* has ensued. The accurate statement of the facts is, therefore, this: inflammation directly produces softening, as the result of its exudation of the blood plasma into the part; and if hardening ensues after a time in a part where inflammation had existed, it is due to an organization of the same plasma which at first rendered the same part softer. It does not depend on the character of the inflammation, whether acute or chronic, but merely on the fact of the organization of the plasma, instead of its reabsorption or its degeneration; and this organization requires a certain amount of time. In other words, it is a *chronic result* of an inflammation, though the latter may have been itself acute or chronic. Metritis, therefore, complicated with softening, is simply acute metritis; for the softening is one of its essential and never absent results. Of course we do not here consider fatty degeneration and other forms of softening of the uterine tissue, which have no known or suspected relation to the inflammatory process. And chronic metritis, complicated with induration, is simply hardening of the uterus from the organization of the product of a previous inflammation. Congestion is, however, very liable to continue for a longer or shorter time after the inflammatory process subsides, and hence we often find chronic congestion coëxisting with induration. Besides, we may have recurrent inflammations in an indurated uterus; but, if so, this inflammation needs no peculiar treatment on account of the induration; and the latter still remains to be treated after the inflammation subsides. The distinction of the two classes referred to, therefore, of complications with chronic parenchymatous metritis, are pathologically incorrect, and besides have no therapeutical value. On the other hand, we remember that induration is continually found without any inflammation or even congestion of the part; though sub-involution after parturition is sometimes mistaken for it.

Another error which Dr. P. had to specify was the confounding of engorgement with inflammation in the case of any organ. Some, however, go further than this, and use the terms congestion, engorgement, and inflammation, as if they mean precisely the same thing. When we study the phenomena of inflammation artificially produced in the web of the frog's foot, or the wing of the bat, we find that the stimulant which we apply produces, 1st, an increased flow of blood to and through the capillaries of the part (local determination of blood)· 2d, a loss of power of the vessels from over distension, and, therefore, a diminished flow of blood through them (congestion); and 3d, an entire stagnation of the blood in the capillaries, and the exudation of its plasma into the inter-capillary spaces, while the corpuscles remain in the vessels (inflammation). On the other hand, when recovery takes place, the inflammation first fades into congestion, and this into the healthy condition of the part. The difference, therefore, between inflammation and congestion is distinctly marked, and always demonstrable under the microscope. But the term engorgement simply means that the part is choked up with an extra amount of fluid, either in the vessels or between them, or both. Hence it may in one case mean mere congestion, and in another, the state produced by inflammation (the vessels distended with blood corpuscles and the plasma exuded from the vessels). But it is never properly applied to the inflammatory process itself. It has, therefore, no scientific value; and the sooner it is entirely dropped from the nomenclature of pathology, the better.

Another point to which Dr. P. desired to call attention is the statement, which had of late become quite fashionable, that the body and the cervix of the uterus are distinct organs, which he characterized as entirely incorrect, whether we consider their relations in a developmental, a histological, an anatomical, a physiological, a pathological, or a therapeutical point of view.

1st. *Developmentally,* the cervix and the body are one and the same organ. The internal female genital organs are developed from the ovaries; each developing one-half of the uterus and one Fallopian tube. The body and cervix are continuous in structure from the first. At birth, however, the cervix is nearly twice as large as the body, constituting about two-thirds of the whole organ; and the uterus has the form of a cone, with its apex at the fundus.

2d. *Histologically,* the body and the cervix uteri are the same also. There are the same tissues in both, and both are supplied with vessels and nerves from the same sources. The arrangement of the mucous lining of the cervix is different from that of the body; but the tissue is the same. And besides the mucous membrane, the nerves, bloodvessels and lymphatics, and the peritoneal investment, there is nothing but collagenous (or connective) tissue and non-striated fibre in either.

Dr. Barker has spoken of a similarity of the uterus, in a histological point of view, to cartilage and bone. But cartilage has neither bloodvessels, lymphatics, nerves, nor muscular fibre, nor any other of the tissues found in the uterus. It has only two histological elements, cartilage cells and a hyaline substance in which they are imbedded. Bone, on the other hand, has no muscular fibres or collagenous tissue like the uterus; but owes its peculiarities to its phosphate of lime and other salts combined with osteine. Histologically, therefore, the comparison of the uterus with cartilage and bone, is incorrect.

3d. *Anatomically* considered, the cervix and the body are but parts of the same organ. It has been stated that the muscular fibres of the body of the uterus are nowhere prolonged into the neck except posteriorly. If this were really so, the cervix would be torn from the body at their junction in front in case of parturition with rigidity of the cervix; and the child would be expelled into the peritoneal cavity through the rupture. But what are the anatomical facts? Simply that the longitudinal fibres are prolonged from the body of the uterus into the cervix both anteriorly and posteriorly. Dr. P. published this statement in his work on histology, ten years ago; and he who dissects the uterus of a

woman who dies within a week or two after parturition, can easily verify it. As to the arrangement of muscular fibres, there is a striking analogy between the uterine body and neck, and the body and neck of the bladder; and neither of these organs could expel its contents with the precise arrangement that obtains.

4th. *Physiologically*, a distinction is to be made between the body and the neck of the uterus; but even here they are to be regarded as one and the same organ. The function of menstruation is performed by the body, and not at all by the cervix, but the Fallopian tubes also participate with the body in that function. Gestation also is accomplished by the body, and very slightly, if at all, by the cervix (for he would not here discuss the question of the obliteration of the cervix by merging into the body in the later months of pregnancy). The mucus secreted by the cervix differs from that of the body also. But the great culminating function of the body of the uterus is *parturition*, and in this the cervix acts an important part—as a portion of the same organ. Viewed in respect to this function, the cervix is merely the sphincter muscle of the body, as at the end of the rectum we find the sphincter muscle of that canal. The office of both is also the same, viz. to prevent the premature evacuation of the canal which it closes. But a sphincter can never open itself; it must be forced open, as is the case with the sphincter ani, or pulled and forced at the same time, as is the case with the cervix uteri and the neck of the bladder. And the continuation of the longitudinal fibres of the body of the uterus into the cervix, both anteriorly and posteriorly, as has been explained, is the only arrangement which could accomplish this double effect on the cervix which has just been mentioned. The cervix and the body of the uterus are, then, not distinct organs.

5th. Nor do we discover the asserted independence of the cervix uteri and the body, when we consider their *pathological* relations. Endocervicitis may, and often does, exist without extending into the uterine cavity, and becoming endometritis also; and cervicitis occurs independently of metritis proper: though both metritis and endometritis far less frequently occur uncomplicated with cervicitis and endocervicitis. Still, we know that an irritation in the cervical canal by a sponge-tent frequently produces endometritis as well as a miscarriage in case of pregnancy; and that the common cause of metritis proper in newly-married women is contusion of the cervix. In other words, certain pathological states of the cervix often extend their influence directly to the body of the uterus, as we might expect; and others extend more frequently in the reverse direction: though both these facts are inconsistent with the idea that these parts are distinct organs.

6th. Finally, the cervix and the body of the uterus are not distinct organs in a *therapeutical* point of view; and this is a fact of the highest practical importance. If we cannot affect the body of the womb, as has been asserted, by any application to the cervix, of course all local treatment must be abandoned as useless; since applications to any other part must, by parity of reasoning, be even less efficient still. If the abstraction of blood from the cervix does not modify the circulation of the body of the uterus, when both are supplied by vessels from the same source, he could not imagine how we could affect the uterine circulation by leeching or scarification at any other point. But what are the facts? He had noticed that scarifications, often repeated, of the cervix, in the cases under discussion, produce immediate relief in most cases, and which is frequently permanent; and Dr. Barker also has admitted the relief, though he believes it is merely temporary. But any degree of relief shows that the circulation of the body of the uterus is thus modified. Besides, Dr. Barker places his main confidence, so far as local treatment is concerned, in vaginal injections of warm water—a practice quite irrational if the cervix and body are independent organs; but which also was occasionally resorted to by himself, on the principle that the water thus applied to the cervix extends its effects to the body also.

But he (Dr. P.) would not extend his remarks further on the question of the dependence of these two portions of the uterus. Dr. Kammerer had remarked that he knew of no treatment which would remove the induration of the uterus before mentioned. Dr. P. regretted that he could not shed much light on that point; but he thought we must trust mainly to the bichloride of mercury, bromide of potassium, electro-magnetism, and especially to *time*.

The meeting then adjourned.

STATED MEETING, Dec. 19, 1866.

DR. JAMES ANDERSON, PRESIDENT, IN THE CHAIR.

PROPHYLAXIS.

DR. ORDRONAUX read the annual discourse with the above title. He said that every age had its dominant idea, and that to convert mere dogmas into rational processes, characterized the present generation. No age could be completely barren of fruit, its *seed-thoughts* sooner or later were destined to germinate. The prevention of disease seemed now to claim the attention of philosophers, although its principles had long ago been taught by pedagogues, and the school of Salernum had embodied them in its famous Code of Health. He claimed that State Medicine was a science, and as such had been recognised by the Greeks, and after them by the Romans, both of whom had State Physicians, whose duty it was to prevent the extension of disease, by arresting it, if possible, among the poorer classes. The world had made long strides in the art of prolonging life, when we reflect upon the achievement of raising the standard from the average duration in the sixteenth century, of 18 years and 5 months, to its present limit of 39 years.

He held that disease was neither fortuitous nor self-generated; that although, like sin, it was permitted to exist, it was governed by established laws. After an allusion to temperament as a modifier of predisposition, he discussed the effects of climate. He said that our own climate, in its rude alternations from one extreme to another during the Spring and Autumnal months, could not explain all the causes of disease. There was something in a long residence; and a change of habit, despite well known precautions, was sure to bring about physical derangement. Dr. Kane, in his arctic expedition, failed, with all his knowledge of dietetic and sanitary laws, to fortify his men against attacks of scrofula. The Anglo-Saxon race loses its stamina in the first generation or so, after a change of residence to a different latitude. We may study this better in cases where great masses of men are concerned, as in the transfer of European troops to the tropics, or among the ancients by the history of the northern invaders of Rome.

Again, in the case of our own late war, the mortality among the colored troops was much greater than among the white, and this was undoubtedly due to physical causes, since in autopsies, which were extensive enough to approach accuracy, the liver in the negro was found to be larger than in the white, while the reverse was true with regard to the brain, lungs, and spleen.

He alluded to the atmosphere tainted in large cities, or poisoned in malarious regions, as having a baneful effect upon development; also to the effects of a continued use of certain articles of food to the exclusion of

that variety which was something more than an æsthetical demand. A discussion of those diseases claiming a septicæmic origin, naturally led to the consideration of the alkaline sulphites, and the experiments of Dr. Polli and Geritze.

He thought that the atmosphere was charged without reason even from the days of Pliny, who credited the East with the origin of pestilences. There was too great a looking away *from* man to weird agencies; overcrowding and kindred social evils slew more than the air. He hoped that the fearful epidemics of the middle ages were not to be lost upon us, but that we might study God through nature, and achieve our results through reason, by art.

Dr. Ordronaux concluded his paper with a eulogy upon the Health Board, and advocated the distribution of tracts to the poorer classes, in which sanitary rules for their guidance in the prevention of infectious diseases might be blended with the inculcation of religious truths.

Osteo-Myelitis.

Dr. Lidell, in a paper of some length, gave his views upon this subject. He stated substantially that the literature of the disease extended back as far as 150 years, although it was somewhat imperfectly described under various names. He cited as authorities for this remark J. L. Petit, Duverney, Gooch, Cheselden, Hay, Percival, Pott, Abernethy, B. Phillips, Cruveilhier, and Nelaton, the last of whom devised the term. It was not, however, until the Crimean war that the disease attracted the attention its importance demanded.

Osteo-myelitis was not confined to army practice, it was to be met in civil life; and did not confine its attacks to any one bone, not excepting the sternum, clavicle, scapula, etc.; although the lower extremities were more frequently the subjects of its visitation than the upper. It may be severe and rapid in its course, or sluggish and obscure, acute or chronic in character. Cases in illustration were given.

Among the causes he enumerated contusions and contused wounds; the admission of air into compound fractures, especially gunshot resections; the sequelæ of major operations; the lodgment of foreign bodies; the scrofulous dyscrasia, constitutional syphilis; the rheumatic diathesis; idiopathic fever; transportation from the field over long and rough roads; impure air, etc.

The disease belonged pre-eminently to youth, and to the male sex, as was proved by both military and civil practice. In 61 cases met with in the army, the average age was less than 40, the youngest being 18, the oldest 49; while out of 29 cases in civil life, the age of two-thirds of that number was less than 25 years.

After discussing the pathological anatomy in detail with certain points in treatment, the paper was concluded, after which the Academy, at a late hour, adjourned.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Conversational Meeting, Dec. 12, 1866.

THE THERAPEUTICAL APPLICATIONS OF MURIATE OF AMMONIA.

Dr. A. D. Fish introduced the subject with the statement that this valuable remedy was not sufficiently appreciated in this country, though it was very largely employed by the German physicians, who frequently found it a valuable substitute for calomel and other mercurial preparations, to the action of which they consider it strongly analogous. The French physicians prescribe it as an expectorant, as a diuretic, and as a stimulant to the circulation. Its method of action is often through the blood, perhaps by direct absorption. Dr. Richardson, of London, in the Astley Cooper prize essay for 1856, on *the Causes of the Coagulation of the Blood*, has shown by a series of carefully conducted experiments, that freshly drawn blood gives off ammonia in the process of coagulation, and also that the addition of ammonia to the blood restores its fluidity, and that it can be again coagulated and made fluid by abstracting ammonia or supplying it. These facts would seem to shew that ammonia would have a wide therapeutical application. Dr. Watson recommends it in facial neuralgia, and the experience of others justifies this recommendation. Dr. Fish mentioned a case of aphonia which recovered fully under the use of inhalations of ammoniacal vapor, disengaged from a solution of muriate of ammonia and carbonate of potash. Dr. Copeland recommends this remedy in hæmorrhages of a passive character, especially in cases of diarrhœa; Dr. Simms, of South Carolina, in Asiatic cholera, as particularly adapted to the collapsed stage.

A recent writer, whose name does not occur to the reporter, strongly recommends its use in cases of membranous croup and diphtheria. Dr. Fish could bear testimony to its value in these diseases. He mentioned the case of a little girl to whom he had been called after she had been sick a day or two. She had considerable fever, pulse 120, croupy respiration, and a diphtheritic deposit on the posterior fauces, uvula, and tonsils. He gave five grains of the muriate of ammonia every fifteen minutes, until she had taken a drachm or two, after which she expectorated freely, and expelled large quantities of the deposit; immediately there was a reaction, with rapid restoration to health. In another case, six years old, with croupy respiration, pulse 120, considerable swelling externally, etc., he gave five-grain doses every half hour, until two or three drachms had been taken, the disease being entirely combated, and restoration to health speedy. He could relate many other instances, and in diphtheria he would rely on its remedial powers to the exclusion of all other remedies. He had cured subacute rheumatism, in many instances, after all other resources had failed; dose to the adult, thirty grains every four hours. May not the reason of its efficacy in so many different affections be that ammonia is the life of the blood? It is best given in solution, in water, with extract of glycyrrhiza to conceal its nauseous taste; two drachms of muriate of ammonia, a drachm of the powdered extract of glycyrrhiza, with six ounces of water. The dose for an adult, a tablespoonful (containing ten grains) every three or four hours. Medicated pastilles, now so popular, have, as their basis, muriate of ammonia, often combined with muriate of morphia, and probably a little senega. In enlargements of the glands, it is used in lotions containing half an ounce, largely diluted. In hydrocele of children, it is peculiarly applicable. Ecchymosis of the eye (black eye) is advantageously treated by muriate of ammonia, introduced into the poultice. It is supposed to enter the part by means of the circulation, and may do so even when applied locally. Added to iodide and bromide of potassium, bichloride of mercury, etc., it will render them more quickly absolved into the system.

Dr. Wittig does not consider muriate of ammonia can ever become a substitute for calomel, but thinks this idea has become prevalent from the fact that muriate of ammonia is a better remedy in many cases where calomel is too often used. Their action is dissimilar. Calomel is to be given where the vascular system is affected; muriate of ammonia is more applicable to affections of

the mucous membranes. Calomel may be used in inflammatory affections; not so muriate of ammonia; but it can be used in congestive diseases, where the mucous membrane is injected, and it is therefore applicable in catarrhal affections of the respiratory organs, the intestines, the vagina, etc. In those cases of influenza, preceding an epidemic of cholera, it is an excellent remedy. He has had it kept ready for use in two-gallon vessels by the apothecaries, so that his patients should obtain it promptly. Dr. Carson often prescribed it in cholera, with sulphate of quinine. Muriate of ammonia is eliminative; it will increase the action of a mucous membrane, whether by affecting its structure mechanically, or by absorption into the circulation, we cannot tell. Thus we find it often useful in chronic affections. In scrofulous affections it may be employed. It has been recommended in scirrhus, in swellings of the bones, etc. Dr. Wittig has used it successfully in diphtheria, and likewise in typhoid affections of the mucous membrane of the respiratory organs, in connexion with quinine, or a decoction of Peruvian bark. He has also used it in rheumatism; also with good effect in cerebro-spinal meningitis, which he considers a rheumatic affection.

Dr. Burans, of Frankford, corroborates the remarks of the gentleman opening the discussion. He is at present treating a case of aphonia with chronic bronchitis, by muriate of ammonia, with syrup of squills and morphia. In results arising from the *poison vine*, he has never found anything else equally efficacious. He has used it locally in erythema with marked benefit; never uses anything else locally; has seen whole limbs covered with the erythema nodosa, whose character has been thus completely changed in a very short time. Recently, he applied it, directing rest, to a case of scrofulous enlargement of the inguinal glands in each groin, and in a few days they were scattered. He applied cloths, constantly wet with a solution of an ounce to the pint of water, with half an ounce of tr. opii.

Dr. Turnbull considered it an interesting question to determine, whether really the action of this remedy in the economy is the same as that which prevents the coagulation of the blood when freshly drawn. He had employed the aromatic spirits of ammonia in cases of emboli, and the results seem to be against the experiments of Dr. Richardson. He had tried it in two cases of fibrous tumors, which had not progressed.

Dr. Bell thinks it acts by the mucous membranes chiefly; some say by a renewal of the membranes. If employed too extensively or continuously, we are apt to injure the mucous membranes. It is coming into use very much now, as calomel is going out of use. It is a valuable remedy, and is to be received with favor.

Dr. Cohen testifies to its value in catarrhs, and in bronchitis, recent and chronic, both constitutionally and locally. A commencing bronchitis, in its dry stage, may often be set aside by the frequent inhalation, for a day or two, of vapors from muriate of ammonia, heated over a flame in a spoon or other receptacle. In nasopharyngeal catarrhs, or rhinorrhœa, it is a valuable remedy, and may be used most conveniently by snuffing the fumes given off by heat. It promotes secretion.

Dr. A. Nebinger has used it in the treatment of membranous croup, but never alone; in some cases successfully; but does not attribute the success to this remedy in particular, as those employed with it were entitled to merit also. He has seen it useful with syrup of senega and other remedies, in chronic bronchitis, but has never given it alone. In large doses, long continued, it produces indigestion certainly, and his experience is not that it is cathartic, but that it constipates. He has used it locally in coryza, in purulent offensive discharges from the nasal passages, as a snuff, with cubebs, but at the same time he has employed iodine and iodide of potassium constitutionally. In persons with a hack from some irritations of the throat, he has used it in combination with cubebs and extract of liquorice, sometimes in a mass, so that the patient could cut off with his knife what was required and place it on his tongue occasionally; at other times in a powder; muriate of ammonia, in powder, ʒj; cubebs and powdered liquorice, each, ʒ ss; sugar ʒ ij. In subacute irritations of the pharynx, tonsils, and uvula, he has used it with a little syrup, in gargles. In frost-bite, he has used it with spirits and water, bathing the part in it for half an hour, and not wiping it off.

Dr. Hamilton has not had much personal experience of any consequence with this remedy; but before attending the meeting he had looked over a German formulary, containing some two thousand prescriptions, and was surprised to see what a large proportion of them contained this as one of the ingredients. In his opinion, the muriate of ammonia seems to render the fluids less plastic, and to be thus a powerful resolvent. He felt disposed, from the discussions, to pay more attention to it as a therapeutic agent, than he had been in the habit of doing.

HYDROPHOBIA.

Dr. Andrew Nebinger related the history of a case of hydrophobia. On the Tuesday evening previous (3d inst., at 7 o'clock), he was called, in consultation with Dr. J. H. Cantrell, to see a gentleman, æt. 48, who, the preceding Sunday four weeks, had been bitten by his own dog, a terrier, to whom he was attempting to give table-salt as a medicine, as the dog did not appear well. The dog bit him through the second finger, dividing the nail completely, the teeth going, as he thought, down to the bone. No attention was paid to the wound other than to apply a mild dressing. Three days after receiving the bite, the gentleman became satisfied that his dog had the hydrophobia, and he killed him. On Monday, four weeks after being bitten, the first evidence of derangement of health presented itself in a little nervous irritability; he "felt," as he expressed it, "as if something bad was going to happen to him." He experienced some little difficulty in fixing his mind on any subject; the restlessness increased; he was very uneasy during the night, tossing about in bed and feeling as though he would suffocate. In the morning he rose rather earlier than usual, because he felt so uncomfortable, that to get up seemed a relief. During the day he went about his business—that of attending to his tavern—but found the uncomfortable nervousness still growing worse, until finally about mid-day, he discovered that the sound of the liquors running from the bottles, and the running of water from the faucet, became peculiarly unpleasant to him. At four o'clock in the afternoon, his condition became aggravated; when he made an effort to drink, could not swallow the water; sent for his physician, who gave him a moderate dose of opium. Dr. N. saw him, in consultation, at 7 P.M. The man was down-stairs in his dining-room, his face considerably flushed, a degree of excitement manifest in his countenance; he was restless, fidgety, indisposed to keep quiet, and persisted that he could not swallow water. Dr. Nebinger poured some water from a pitcher into a tumbler, during which the patient shuddered, his countenance showing that he felt acutely uncomfortable. He was asked to make an effort to take a drink, but declined decidedly, and seemed annoyed and horrified at the idea that such a request should have been made. He was urged to drink, much to his disgust; but finally he said: "I will touch the water."

He then put his finger tremulously towards the water, but with his head turned from it, dipped his finger in and quickly withdrew it. He then took the tumbler in his hand, made an effort to bring it to his lips, and when it got within eight or ten inches of his lips would quickly turn away. Finally, after making a very great effort, he succeeded in bringing the tumbler to his lips; but to have got a drop of water to his mouth he firmly declared was impossible. "I can't touch it! I can't touch it!" he said.

The treatment determined upon was to send him to his room and apply wet cups along the spine, from the head to the sacrum. After being well cupped cantharidal collodion was applied over the entire spinal column, three inches in width. It did not work well and speedily. It was determined to give half a grain of the sulphate of morphia every hour, by hypodermic injection. Dr. N. saw him again at 11 o'clock that night. The blister had taken effect, and there had been injected a grain and a half of morphia, but there had been no amelioration of his symptoms; on the contrary, there was decided exacerbation. He was now seized with paroxysms in which he declared he could not get his breath; there would be a deep inspiration and then a heaving of the breast, at intervals of every five or eight minutes. His bowels had not been moved through the day, and three drops of croton oil were administered.

He was seen again just after midnight—at 12.15; he was worse, not improved in a single respect; the morphia had been faithfully given, but without inducing any disposition to sleep; the paroxysms had grown more violent and the interval between them had shortened. The treatment described was persisted in throughout. He took, from 8 o'clock P.M. on the Tuesday, until the period of his death, which took place about twenty-two or twenty-three hours after treatment had begun, about twelve grains of morphia; and the twelve grains had no more effect, as far as producing sleep was concerned, than if he had not taken a single grain. His eyes were never closed in sleep until they were closed in the sleep of death. He died unexpectedly in one of his paroxysms. The paroxysm immediately preceding had been as violent and as long continued as any previous one; his condition manifesting as much vigor as for four or five preceding hours.

During the period of the paroxysms the mind of the patient was disturbed, but in the interval he was as rational as at any period of his life. He was informed of his perilous condition, of which he seemed to be fully aware himself; that the chances of being carried safely through were against him, and that he had better settle his temporal affairs; but having apprehended death, he had sent for his spiritual adviser before Dr. Nebinger saw him. He afterwards conversed about the matter of his death, and being impressed with the popular delusion that every individual laboring under rabies had to be put to death in some manner or other, he made occasion for all the persons in his room, except Dr. N., to quit the apartment—Dr. Cantrell being in an adjoining room preparing a dose of the morphia. He then said to him: "Doctor, whenever the time *comes*, do the work quickly!" On being asked what he meant, he replied: "I mean whatever means you will use to destroy me, when the time comes, let it be something that will do it quickly." He was informed that his physicians were not present to destroy him, but to save him, if possible; and if that was impossible, to diminish his sufferings as long as he should live. After a moment's reflection, he said: "Excuse me, Doctor; I know it was wrong to say what I did." Indeed, the popular delusion in the neighborhood is, that *poison was injected into his veins*, or that bleeding him, or smothering him, or some other means to hasten him out of the world, was had recourse to! He had been injured in the right hand, and when one of his paroxysms was coming on, he would say to those standing by: "Grip my right wrist tightly—that breaks the spell." And it really did seem to have some influence; for when it was done, instead of three or four convulsive movements in the paroxysm, he would have but one or two. When they were very violent, he would make an effort to get out of bed, appearing as if he would like to go somewhere to get air.

There was no pain running up the arm from the wound; it was without any inflammation whatever; the wound beneath the nail was healed; there was some tumefaction, but no soreness, even when the part was handled very roughly.

His tongue was very dry—drier than in health; there was no secretion of saliva. At 12 o'clock at night there was a slight secretion in the larynx, but no increase next day.

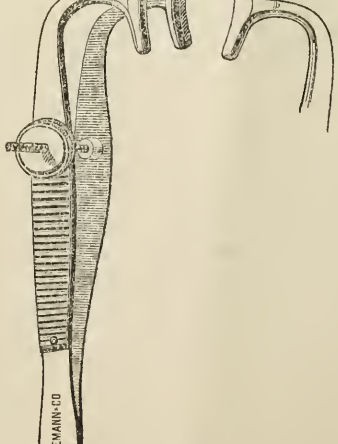
His mind was perfectly clear throughout. At Dr. Nebinger's second visit, at 11 o'clock at night, a lawyer was present copying a will that had been written by a friend some hours before, so that he could be certain there was no flaw in it. The doctor mentioned this fact as an evidence of the patient's clearness of mind, and even cautiousness.

The doctor remarked that the case did not present so much wildness, nor was the patient so unmanageable, as is recorded of some hydrophobic patients; nor was there the abundant secretion of mucus in the trachea, etc., as is also related of some cases. The absence or the modification of these conditions, the doctor was of the opinion, could be fairly ascribed to the large quantity of sulphate of morphia administered.

New Instruments.

FORCEPS FOR THE OPERATION OF HARE-LIP. BY PROF. J. C. HUTCHISON, M.D.

The instrument consists of two pairs of forceps, one for each side of the cleft, the blades of which are deeply



grooved on the opposing surfaces, and the front edges of the groove are serrated so as to take a firm hold on

the parts. The anterior edges of the blades are concave. The handles are provided with a button compressor, by means of which the blades can be firmly closed, and any amount of compression made that may be necessary.

They are used in the following manner: The lip should be detached from the gum on each side sufficiently to allow the opposite surfaces to meet in that tension. The forceps are then applied on either side of the fissure and the blades firmly closed by the button. The flaps are lifted up from the gum with the forceps, and made tense, while the edges of the fissure on one side and then the other are pared with a scalpel, carried along the anterior margin of the blades. The wound will present two almost semi-elliptical cut surfaces, with their concavities looking towards the median line of the fissure. The opposite surfaces are now fitted to each other, and held by the forceps in apposition, while the pins are introduced.

The advantages of the forceps are—

1st. By compressing the coronary and other arteries hæmorrhage is prevented.

2d. The semi-elliptical incision of the flaps can be made with more regularity and facility along the edges of the blades.

3d. By having each flap under the control of the forceps held in either hand, they can be more neatly and accurately adapted to each other, while the pins are being inserted.

Correspondence.

WHO WAS THE INVENTOR OF THE SPLINT?

To the Editor of the Medical Record.

Sir—In Dr. Taylor's reply to Historicus, he claims that he states the *whole* truth of history; but, like some witnesses, states only what *apparently* sustains his cause.

We grant his disclaimer, that he had never seen the article referred to as published by Dr. Davis in 1856, but there are other statements which he has admitted in his reply.

In criticising Dr. Davis's paper, he says: "Moreover, that article, while giving no hints of the form of the apparatus itself, does state very clearly its *action*, which is just the action that I have always opposed, and to avoid which my apparatus was contrived." He then quotes what Dr. Davis says about the band under the arms, as not affecting the patient by pressing upon the vessels in the axilla, as does the crutch, and then argues from this that *lifting* the body was the *only* object and office of these bands, whereas this statement by Dr. Davis was only to show, that, although the bands were in the same locality as the crutch, yet their action was entirely different, and that whatever lifting they might exert was not objectionable. This was a secondary object, other portions of the paper showing conclusively what *was* the primary object. To illustrate this point, we will quote from this same paper from which Dr. Taylor has made his extracts * Dr. Davis says "The body and oblique processes afford the only perpendicular support to the spine." Then follows: "*It is this form of the vertebræ which enables us to make use of the whole spinal column as a lever, to restore it.*" "*By apparatus we are enabled to throw the entire weight of the superincumbent body* (not to lift it, as Dr. T. says) *upon the oblique processes, and thereby separate the bodies of the vertebræ adjoining that diseased, from it, the contact of which were constantly irritating each other, and producing absorption.*"

* May No. of the American Medical Monthly.

We do not see how language could well be more explicit. Dr. Taylor's explanation of Dr. Davis's apparatus and its principles, is like the play of Hamlet with Hamlet left out. He gives a perfect caricature of Dr. Davis's apparatus; placing the bands under the arms down near the middle of the thorax, that they may *appear* designed particularly to lift the body and *not* to hold the top of the steel near the spine, thus forming the pad (which he has exhibited upon the steel as of no use) against the projecting vertebra, while at the same time it draws the upper portion of the spinal column backwards. In the instrument used by Dr. Davis at this period, which he has represented in the cut, the centre of the bands, where they were secured to the steel, was but a little higher than the axilla. At this time Dr. Davis was in the habit of using bands over the shoulders, when the disease was located high up in the dorsal region. These bands commenced at the top of the steel on the back, and after passing over the shoulders, came down under the arms and were secured to the apparatus behind. To convince Dr. Taylor that others did not so understand the intention of Dr. Davis's apparatus, we will quote from published papers.

In the March No. of the American Medical Monthly for 1857, page 183, Prof. E. H. Parker, one of the editors, in speaking of the new modes of treating diseases of the joints and deformities, introduced by Dr. H. G. Davis, says in reference to Pott's disease of the spine: "Another peculiarity interested us in the treatment of Pott's disease. The weight of the column (spinal) above the disease is thrown (not lifted off from) upon the transverse processes of the diseased vertebræ"—"on them it is supported (not lifted from), while the diseased surfaces, being kept separated, cease to irritate each other." We will add another extract from a paper read by Dr. David Prince, of Jacksonville, Ill, before the State Society, in May, 1865. After quoting from Dr. Davis's paper in the American Medical Monthly for 1856, to show what Dr. Davis's plan of treatment was at that time, he says: "These quotations are made not only to vindicate American Surgery against foreign claims, but to secure *the honor of originating to whom it rightfully belongs among Americans.*" He then quotes Dr. Taylor as *claiming* to be "the inventor of the only method which does not rely upon crutches for support;" then goes on to say: "From a letter from *Dr. Taylor himself*, we learn that *his own apparatus* was *invented* in 1859. This was several years after Dr. Davis had employed his apparatus."

Thus it appears that Dr. Prince fully sustains Dr. Davis's claim to originality against Dr. Taylor upon the evidence that was open to Dr. Taylor's inspection at the time of making his instrument.

From the foregoing extracts, bearing *directly* upon the point under discussion, it is evident that they all understood Dr. Davis to rely upon making use of the spinal column as one lever, and his apparatus as another; the fulcra of both being at the diseased point in the vertebral column, separating the diseased surfaces from each other, thus overcoming the irritation produced by the pressure of these diseased surfaces upon each other, and they, with equal unanimity, give Dr. Davis the *credit of having originated this plan of treatment.* Two of these gentlemen make this statement, some two years before Dr. Charles F. Taylor says that he constructed his instrument.

Dr. Taylor quotes Dr. Davis as using the expression a "*kind of crutch.*" Dr. Davis uses no such language, neither any that admits of such an interpretation. He virtually makes Dr. Davis say that he intended using the band in the place of a crutch, which the tenor of his whole article contradicts. He simply stated that all the lifting power it did exert, while performing its other

and primary office, *did not affect the nerves and blood-vessels* in the axilla injuriously, as did the crutch.

Dr. Taylor speaks of the changes in Dr. Davis's apparatus, and intimates that they were brought about by the introduction of his, Dr. T.'s, instrument. As we have proved conclusively that Dr. Davis's apparatus preceded his by years, and was understood by others to embrace the principle that Dr. T. claims for his, we think this point is for ever put at rest.

One other point, Mr. Editor. Dr. T. limits the credit due Dr. Davis in the treatment of joint diseases, or rather he confines it to the hip-joint alone, to the invention of a splint for a particular purpose, namely, "counter-extension with locomotion." This is simply saying, Dr. Davis invented a more portable splint than was before extant. Now it is well known to that portion of the profession who keep up with the progress of our science, that Dr. Davis first discovered that it was "*pressure upon the articulating surfaces* (that) *plays an important rôle in the destructive process going on in diseased joints*;" "that this pressure was equal to the force of the muscles as then exerted in holding the joint motionless." Dr. Davis found that a wearying force was the most effectual in overcoming the action of the muscles; he therefore adopted the use of the rubbers to separate the head of the femur from the acetabulum, which is on the pelvis; the extension must be between the two, hence his "portable" splint. His discoveries *before the invention of the splint were the most important*, and led directly to its invention, to meet the before-discovered necessity.

HISTORICUS.

Medical News and Items.

PERSONAL.

THE following appointments in the Navy have been confirmed by the United States Senate: Passed Assistant Surgeon James S. Knight to be Surgeon, vice A. W. H. Hawkins, resigned; Passed Assistant Surgeon Henry M. Wells to be Surgeon, vice L. B. Hunter, retired; Joseph G. Ayres, of New Hampshire, to be Assistant Surgeon; George S. Fife, of New Hampshire, to be Assistant Surgeon.

James B. Parker has been appointed Assistant Surgeon, commission dating Nov. 24, ult.

The following officers have been detached: Assistant Surgeon Adam Trau from the Naval Asylum at Philadelphia, and ordered to the Naval Hospital at Norfolk, Va.; Surgeon Newton L. Bates from the Naval Laboratory at New York, and placed on waiting orders; Assistant Surgeon Ernest D. Martin from the Constellation, and ordered to the Naval Hospital in New York; Surgeon Edward S. Bogart from duty at the Naval Hospital in Norfolk, Va., and ordered to the Naval Laboratory in New York. Acting Passed Assistant Surgeon Francis V. Greene, from duty at the Naval Laboratory, New York, and ordered to the Aroostook.

The following have been detached and placed on waiting orders: Surgeons L. B. Hunter and W. S. Rushenberger, from duty as members of the Retiring Board at Philadelphia; Surgeon P. S. Wales, from duty as Judge Advocate of the same, and Passed Assistant Surgeon D. R. Bannan, from the Shawmut.

The following have been ordered: Assistant Surgeon Frederick Krecker, to the Constellation; Acting Assistant Surgeon Henry C. Eckstein, to the Huron, January 1; Acting Assistant Surgeon Linneus Fussel, to the Unadilla, and Passed Assistant Surgeon Louis J. Allen, to duty at the Naval Academy, Philadelphia.

NOMINATIONS FOR BREVET RANK IN THE U. S. A. MEDICAL DEPARTMENT.—Among the nominations by his Excellency the President of the United States for appointments in the Army, subject to the approval of the United States Senate, are the following:

To be *Captains* by brevet for faithful and meritorious services during the war, to date from March 13, 1865, Assistant Surgeons Peter V. Schenck, Henry R. Silliman, Samuel A. Storrow, William D. Wolverton, Albert Hartsuff, Bolivar Knickerbocker, and Henry R. Tilton. Also Assistant Surgeon George A. Otis, for faithful and meritorious services in the Medical Department, to date from September 29, 1866, and Assistant Surgeon William C. Miner, for meritorious and distinguished services at Fort Columbus, New York Harbor, where cholera prevailed, to date from September 28, 1866.

To be *Majors* by brevet for faithful and meritorious services during the war, to date from March 13, 1865, Brevet Captains and Assistant Surgeons Peter V. Schenck, Henry R. Silliman, Samuel A. Storrow, William D. Wolverton, Albert Hartsuff, Bolivar Knickerbocker, and Henry R. Tilton. Also Brevet Captain George A. Otis, for faithful and meritorious services in the Medical Department, to date from September 29, 1866.

To be *Lieutenant-Colonels* by brevet for faithful and meritorious services during the war, to date from March 13, 1865, Surgeon Charles McCormick, Thomas M. Getty, George Taylor, and Joseph C. Baily; also Brevet-Major and Surgeon Warren Webster, for meritorious and distinguished services at Hart's Island and David's Island, New York Harbor, where cholera prevailed, to date from September 28, 1866; also Brevet-Major and Assistant Surgeons G. M. McGill and J. R. Gibson, for meritorious and distinguished services at Hart's Island, to date from September 28, 1866; also Brevet-Major and Assistant Surgeon Henry S Schell, for meritorious and distinguished services at Tybee Island and Savannah, Georgia, where cholera prevailed, to date from September 28, 1866; Brevet-Major and Assistant Surgeon Charles K. Winne, for meritorious and distinguished services at Tybee Island, Georgia, where cholera prevailed, to date from September 28, 1866.

To be *Colonels* by brevet, Brevet Lieut.-Colonel and Surgeon John J. Milhau, for gallant and meritorious services during the war, to date from March 13, 1865, Brevet-Lieut. Colonel and Surgeon Joseph R. Smith, for meritorious services and devotion to the sick during the prevalence of cholera at Little Rock, Arkansas, to date from November 22, 1866.

To be *Brigadier-Generals* by brevet for faithful and meritorious services during the war, to date from March 13, 1865, Brevet Colonels and Surgeons Charles S. Tripler, Charles McDougall, and Joseph J. B. Wright; also Brevet Colonel and Surgeon William J. Sloan, for meritorious and distinguished services at several military posts in New York Harbor, where cholera prevailed, to date from September 28, 1866; Brevet Colonel and Surgeon Joseph B. Brown, for meritorious and distinguished services at Fort Columbus, New York Harbor, where cholera prevailed, to date from September 28, 1866; Brevet Colonel and Surgeon John J. Milhau, for meritorious and distinguished services at Hart's Island, New York Harbor, where cholera prevailed, to date from September 28, 1866.

AMONG the nominations for brevet rank in the Volunteer force are the following: To be *Captain*, *Major*, and *Lieutenant-Colonel*, by brevet.—Assistant-Surgeon James Clark Stockton, of the Thirty-sixth United States colored troops, for faithful services in the Medical Department, commissions to date from September 11, 1866. To

be *Lieutenant-Colonels* by brevet.—Surgeon William Carroll, U. S. V., for faithful services on Tybee Island, during the prevalence of cholera at that place, to date from August 22, 1866; Surgeon Michael K. Hogan, U. S. V., for faithful services in the Medical Department, to date from June 28, 1866; Surgeon William R. De Witt, U. S. V., for faithful services in the Medical Department, to date from June 28, 1866; Brevet Major W. C. Squire, Captain of the Seventh Ohio sharpshooters, for gallant and meritorious services, to date from July 28, 1866; Surgeon Caleb W. Horner, U. S. V., for faithful and meritorious services in the Medical Department, to date from March 13, 1865; Surgeon John A. Hayes, of the Eleventh New Hampshire Volunteers, for faithful and meritorious services, to date from March 13, 1865; Surgeon Brower Gesner, of the Tenth New York Volunteers, for gallant and meritorious services during the war, to date from March 13, 1865; Brevet Major Robert B. Brown, Assistant Surgeon, U. S. V., for faithful and meritorious services at Galveston, Texas, during the prevalence of cholera at that place, to date from October 25, 1866; Surgeon Samuel W. Blackwood, of the Eighty-first United States colored troops, for meritorious and distinguished services during the outbreak and continuance of cholera in New Orleans, La., to date from November 26, 1866; Assistant Surgeon Theodore Wild, of the Eighty-first United States colored troops, for meritorious and distinguished services at White's Ranch, Texas, where cholera prevailed in August, 1866, to date from November 26, 1866. To be *Colonel* and *Brigadier-General* by brevet, to date from March 13, 1865, Brevet Lieutenant-Colonel and Brevet Colonel Matthew McEwen, Surgeon U. S. V., for gallant and meritorious services during the war.

Medical Autobiography.—So much attention is now given to Medical Biographical writing, and so much care is taken to note down the different salient points of character, habits, etc., of the unfortunate victims, that some insight into the manner in which the very interesting facts are obtained by the author, is deserving attention. We are aware that printed circular-questions are sent to different distinguished individuals to "fill up and return to the author." We have not seen any such, but judging from the points which are brought out in those lives of medical men which we have read, the questions must run very much after the following fashion:

Where born; what hour; day or night?
Any paternal history? Ditto maternal?
Did you ever go to school? If so, where?
Did you ever learn anything at school?
Your early struggles? How many?
Did you start out to be a great man?
What are the names, ages, occupations, and marital relations of all your brothers, sisters, aunts, and male cousins?
Height in feet and inches? In stockings?
What was your last weight?
Are you a graduate of medicine? If so, when and where?
Would you be a doctor again?
Are you fond of lecturing?
What is your opinion of tobacco? Do you smoke or chew?
Your opinion of alcoholic liquor? Do you drink? If so, what is your favorite beverage? When and how do you take it?
What books, periodicals, letters, etc., have emanated from your pen? Were they well received?
When did you marry; what for; how often, and whom? Would you marry again?
How many children by each wife; their names, ages, and employments?
What is your opinion on quarantine?
Have you any property; if not, do you expect any? Did you marry rich?
Have you a good memory? If so, mention some examples.
Can you relate any illustrative anecdote of your character?
Are you religious? If so, how much?

The New York Society for the Relief of the Widows and Orphans of Medical Men.—According to the annual report, the receipts for the year ending Sept. 17, 1866, were $5,017 90, and the disbursements $1,411 22. Six families of deceased members receive the aid of the Society. The officers elected are as follows:—President, Dr. Wm. Detmold. Vice-Presidents, Drs. John O. Stone, O. White, E. L. Beadle. Treasurer, Dr. J. W. G. Clement. Secretary, Dr. S. Conant Foster. Managers:—Drs. J. G. Adams, A. Dubois, J. Linsly, Joel Foster, E. Harris, J. O. Smith, C. D. Smith, H. D. Bulkley, A. C. Post, John W. Sterling.

A Hospital at Newark, N. J., is about to be established by leading German citizens, who have already made several appeals to the public in furtherance of this desirable object.

A Proposed Experimental Therapeutical Society in Paris.—According to the *Gazette Médicale* it is proposed to establish in Paris a society of experimental therapeutics, with the object of testing upon animals the action of drugs.

Trousseau not dead.—We are glad to be able to correct an error made in a previous number, which was in substance the announcement of the death of this distinguished physician. We learn from a reliable source, that the statements of some of the French papers are not founded upon fact, and that the gentleman referred to has recovered from the illness which it was supposed had proved mortal.

The Gain in the Average Duration of Human Life.—Dr. C. A. Logan, in his "Report on the Sanitary Relations of the State of Kansas," cites the example of Geneva, in Switzerland, where an accurate record of the population, births and deaths, has been kept for more than three centuries past, or since the year 1560. By a series of historical and statistical compilations, M. Mallet has ascertained that from the year 1560 to the year 1600, the mean duration of the lives of the people was, in round numbers, twenty-one years and two months. During the seventeenth century, the mean life had increased to twenty-five years and nine months; and in 1833 it had reached forty-five years and five months, being nearly double what it was about two centuries before. This result was brought about by a most salutary regulation of the public health, through which much of the former unnecessary sickness was prevented.

Municipal Munificence.—The municipality of Brussels have offered the very handsome sum of sixteen pence a day as a recompense for services rendered by the medical profession during the last epidemic of cholera. M. Vleminckx, a leading practitioner of the city above mentioned, spiritedly writes to the authorities that his brethren could have borne to have been simply thanked, but that they deny the right of any corporation or individual, to offer men who have displayed skill, courage, and endurance, the paltry remuneration in question.

Original Communications.

THE USE OF PLASTER-OF-PARIS IN THE TREATMENT OF TALIPES.

By JAMES L. LITTLE, M.D.,

OF NEW YORK.

In a paper on the treatment of fractures by the plaster-of-Paris splint, published in the *American Medical Times*, of Dec. 7, 1861, Vol. 3, page 369, after describing splints made of plaster-of-Paris and muslin, in the treatment of certain kinds of fractures, we made the following statement:

"Although we have had no opportunity of witnessing its application in cases of club-foot, we may venture an opinion that no better shoe could be constructed, and none which would fulfil more indications after tenotomy has been performed, than by these accurate mouldings to the limb. During and for awhile after the application of this dressing, due attention should be paid to the adjustment of the foot. The gutta-percha shoe, which is more troublesome to make, and certainly not in many respects as good, might thus be dispensed with."

A few days after the publication of this paper, Prof. A. C. Post stated to me that he had applied at the above suggestion a plaster-of-Paris shoe to a case of talipes.

In February, 1862, while resident surgeon of New York Hospital, a case of talipes varus came under my care, and after dividing the tendo Achillis, I applied the plaster-of-Paris shoe, holding the foot in the proper position until the plaster "*set*." In the operation and the application of the shoe, I was assisted by my colleague, Dr. D. B. St. John Roosa, and Dr. Geo. R. Cutter, my senior assistant.

I make the foregoing statement from the fact that Dr. Enos, of Brooklyn, in a paper on "Deformities of the Feet and their Treatment with Plaster-of-Paris," read at a meeting of the State Medical Society, and published in their *Transactions* for the year 1863, stated that he was not aware that any one had ever used or recommended this form of dressing for talipes.

During the past four years I have applied this mode of dressing in eighteen cases of single, and five cases of double talipes varus, with great satisfaction and success. Many of these cases, through the kindness of Dr. Thomas M. Markoe, were placed in my hands for treatment, from the Surgical Clinique of the College of Physicians and Surgeons.

This form of splint has also been frequently used in the treatment of club-foot since 1861, at the New York Hospital, where it is considered the best application after the operation that has yet been suggested for this troublesome deformity. Dr. Markoe recently applied it to a case of double talipes varus in that institution, after division of the tendons, and the result was all that could be desired.

The method of applying this dressing is as follows: The proper tendons having been divided, two thicknesses of thin, bleached Canton flannel, long enough to extend from a little below the head of the tibia around the heel to the end of the toes, and wide enough to extend almost entirely around the leg, are then to be prepared.

If the patient is over four years of age, it is advisable, in order to make the dressing fit neatly, to cut the Canton flannel after a paper pattern previously prepared to fit the limb. The proper shape of this pattern is represented in figure 1. Below the dotted line *a* is the portion which turns up over the heel and foot.

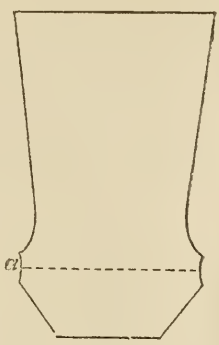


Fig. 1.

The plaster is then to be mixed in a bowl with water, and as it is necessary that the plaster should "*set*" quickly, it is well to use warm water, with the addition of a small quantity of salt. Equal parts by measure of plaster and water are about the right proportions. This makes the mixture about the consistency of cream. The Canton flannel, unfolded, should be then immersed in this mixture and thoroughly saturated. It is then to be laid upon a flat surface, such as a board or table, and smoothed out with the hand, in order to remove any inequalities of its surface, and then folded.

Fig. 2.

It is now, with the help of an assistant, to be applied around the limb; a fold being generally necessary on each side of the ankle in order to make it fit neatly. A roller bandage is then to be applied snugly over it; then *the surgeon, taking hold of the foot, twists it into the*

proper position, holding it there until the plaster becomes hard. This takes from three to seven minutes if the plaster be mixed properly. Figure 2 shows the appearance of the splint with the roller bandage removed. It is best to allow the bandage to remain without removal, as it helps to keep the splint adjusted to the foot. This dressing can be allowed to remain on for several weeks, if the foot is in the right position. If, however, the foot cannot be made to assume its proper relation to the leg at its first dressing, it is well to apply a new plaster-of-Paris shoe in about a week.

In some cases I have found it necessary to apply this shoe six or seven times before the foot would readily come into its proper shape. In some milder forms of talipes varus in young children, this mode of dressing might be made to correct the deformity without the necessity of dividing the tendons.

In the majority of cases of talipes varus in young subjects, the tendo Achillis is the only tendon that is necessary for the surgeon to divide. In many cases, one or two applications of this dressing applied at intervals of two or three weeks after the operation, will be found sufficient to cause the foot to assume its natural position, and the child will learn to walk without deformity.

In older subjects, however, after the patient is able to stand on the sole of the foot, there will still be a disposition for the foot to turn inwards, and in many cases I have found that the use of a shoe, as represented in the adjoining cut (Fig. 3), is all that is necessary to overcome this tendency.

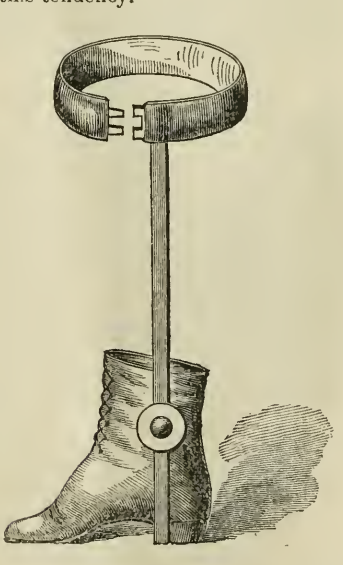


Fig. 3.

The advantages of the plaster-of-Paris shoe in the treatment of club-foot, are,

1st. It can be applied directly against the tender skin of a young child without fear of producing excoriations or causing any pain by undue pressure. This advantage can be better understood by surgeons who have had any practical experience in the treatment of club-foot by the old method of using Scarpa's shoe; the pressure often made over the salient points of the foot by the shoe producing excoriation and ulceration, and in some cases preventing the continuance of the treatment.

2d. The advantage of being able to hold the foot in its proper relation to the leg while the plaster dressing is soft until it becomes hard and immovable, thus retaining the foot in the exact position in which the surgeon holds it.

3d. Its facility of application. The materials are always to be obtained, and are not expensive.

LARYNGOSCOPY.

By J. SOLIS COHEN, M.D.,

OF PHILADELPHIA.

No. VI.

REGIONAL ANATOMY OF THE LARYNX.

Before entering upon the detailed study of the image perceived in the laryngeal mirror, it will be advisable to advert in succinct terms to the regional anatomy of the component structures, in order that the subsequent elucidation be rendered more satisfactory and comprehensive.

The trachea is surmounted by a stout ring-shaped cartilage, the *cricoid*, which may be viewed as the base supporting the laryngeal fabric. Articulated at its sides by capsular ligaments with the lower horns of the thyroid, it is clasped as it were by that cartilage, to the lower border of which it is further attached anteriorly by a peculiar elastic membrane—part of the vocal membrane here forming the middle crico-thyroid ligament, and laterally by ordinary ligament and muscle. Surmounting the cricoid behind and articulated to it by loose capsular ligaments are two three-sided pyramidal cartilages, the *arytenoids*, separated from each other by a fissure known as the inter-arytenoid incisure. On top of these arytenoids, and serving to prolong them inwards and backwards, are the cartilages of Santorini, and at the side of their articulation occasionally (Luschka) a sesamoid cartilage. Directly opposite the arytenoids, and attached by ligament to the inner surface of the upper portion of the angle formed by the junction of the wings of the thyroid (the inner surface of the pomum Adami), there is suspended a leaf-like cartilage, the *epiglottis*, overlooking the entrance into the larynx like a trap-door, which it is. The greater extent of this cartilage anteriorly is closely connected by ligament from below upwards, to the thyroid cartilage, the hyoid bone, and to the root of the tongue, above the base of which its free broad extremity projects. From each side of this epiglottis as it tapers down to its pedicle of attachment to the rentrant angle of the thyroid in which it is confined, there stretches an elastic membranous structure, continuous with the middle crico-thyroid ligament and covered by mucous membrane, and which, ensheathing in its course various ligaments, muscles, and cartilages, is attached behind to the arytenoid of that side, and below to the superior border of the side of the cricoid; presenting, therefore, an expanded unattached surface exteriorly and interiorly, and leaving a free space or pouch between its outer surface and the inner face of each wing of the thyroid. This free guttered space, continuous with the pharynx, which slopes down to the entrance into the œsophagus, has much the shape of a long three-sided pyramid, the base above, the apex below, one face behind and the angle in front, and from its shape is known as the pyramidal or pyriform sinus; anatomically, the laryngo-pharyngeal or lateral pharyngeal sulcus, sinus, or fossa.

This membranous expansion on each side with the epiglottis in front, and the arytenoid and the supra-arytenoid cartilages, with their connecting muscle and mucous membrane, constitutes the encircling boundary of the upper laryngeal cavity; so that from one thyroid plate to the other there are three distinct spaces, the central one being the entrance proper into the larynx,

and each lateral one, a pyriform sinus tapering down to the œsophagus. All that portion of this elastic mucous membrane above the middle crico-thyroid ligament, being irregularly quadrilateral in shape, is called the quadrangular membrane, and its superior margin is known as the aryteno-epiglottic (or for short *ary-epiglottic*) fold, which is considered by some anatomists to consist at least in part of ligament tissue. Near its attachment to the apex of the arytenoid cartilage, this fold incloses a small elongated staff-like cartilaginous nodule, the cuneiform cartilage or cartilage of Wrisberg, rudimental and occasionally absent in the white, larger and said to be constant in the negro.

Thus the superior aperture of the larynx presents a cordiform outline descending an inclined plane, wide in front and sloping obliquely downwards, backwards, and inwards, to terminate in the narrow fissure separating the two arytenoid cartilages.

In the interior of the larynx, the elastic membrane with its mucous covering, as it reaches the petiolus of the epiglottis, makes an attachment on each side, in front to the rentrant angle of the thyroid and behind to a tubercle on the anterior and inner face of the arytenoid; then rolls outwards on itself its whole length from one point of attachment to the other, forming a thick fold with crescentic margin; which is the *false vocal cord*,* and constitutes the roof of the ventricle of the larynx. This duplicature is continued up anteriorly into a pouch or sac existing between the two reflected layers of the quadrangular membrane, running up often as high as the superior border of the thyroid cartilage and sometimes higher, becoming conical and turning backwards in the form of a Phrygian casque, as graphically described by Cruveilhier; and then descending the opposite wall of the sac passes the reflected border which we call the false vocal cord, and immediately below this point is reflected horizontally inwards over the narrow inferior thyro-arytenoid ligament or true vocal cord, a stout fibrous band extending from the rentrant angle of the thyroid where it coalesces as it were into a cartilaginous prominence, the anterior vocal process, just below the point of attachment of the false vocal cord, to be attached behind in coalescence with a similar cartilaginous protrusion, the posterior vocal process, to the anterior angle of the base of the arytenoid cartilage; then the elastic membrane on the inferior face of this true vocal cord is continuous with the middle crico-thyroid ligament, after which the mucous membrane continues its descent, and is continued down the windpipe, etc.

Thus there is formed on each side in the interior of the larynx, about half an inch below its superior border, a narrow elliptical space separating the true and false vocal cords. This is the ventricle of Morgagni or of Galen, and is the vestibule of communication between the laryngeal pouch and the main cavity of the larynx.

The existence of the *elastic membrane of the larynx*, or vocal membrane as it is now being appropriately termed, and which determines the form of the vocal apparatus, was first described by Lauth in 1835, and his description was subsequently confirmed by the dissections of Tourtual, Merkel, Luschka, and others. Its existence was independently discovered in this country by Dr. Leidy, Prof. of Anatomy in the University of Penn., who in 1848 made it the subject of an article published in the *American Journal of the Medical Sciences*. The membrane can be distinctly traced continuous with the middle crico-thyroid ligament along the inferior surface of the true vocal cord, but above this point it becomes very attenuated and is traced with difficulty.

The articulation of the lower horns of the thyroid to the sides of the cricoid permits a certain amount of movement on its horizontal axis. The ball and socket articulation of the arytenoids upon the cricoid permits very free movement forwards and backwards, outwards and inwards, and to a certain extent rotarily. These arytenoidal movements can be beautifully demonstrated by means of the laryngoscope, and the vocal cords being attached to these cartilages participate in their movement.

EXAMINATION OF THE LARYNGEAL IMAGE IN DETAIL.

The most prominent structure attracting attention in the laryngeal image will be the epiglottis, whose free portion projecting stiffly forwards from behind the base of the tongue renders it readily recognised. In the upper part of the mirror and behind, we recognise the under surface of the posterior palatine arches terminating in the lateral walls of the pharynx; and in front of the tonsil, the anterior palatine arches terminating in the sides of the base of the tongue, of whose posterior surface with its papillæ, more or less is visible according to the obliquity of the mirror. Directing our attention to the epiglottis we recognise an anterior and posterior surface, and an upper arching crest, frequently indented, continuing down in lateral borders from which is given off on either side a pharyngo-epiglottic fold of mucous membrane arching upwards and forwards to join the posterior palatine arch as it terminates in the lateral pharyngeal wall. As this fold leaves the epiglottis we distinguish another fold leaving the same point at nearly right angles and stretching curvilinearly backwards to the arytenoid cartilages. This is the ary-epiglottic fold forming the superior free border of the quadrangular membrane of the larynx. The anterior surface of the projecting portion of the epiglottis is seen to be slightly concave from above downwards, and strongly convex from side to side; while its posterior surface is concave and convex in the opposite directions. As we gain a more complete and extended view of this posterior or laryngeal face of the epiglottis we notice that it swells out more or less abruptly into a considerable belly or pad, which tapers down to its point of attachment, and which, in the process of swallowing, etc., becomes pressed down like the pad of a truss upon the false vocal cords. This is the tubercle of the epiglottis, inelegantly termed the "cushion of the epiglottis," and is formed by an aggregation of small glands and adipose tissue. It very often projects sufficiently to cut off the view of the anterior portions of the vocal cords attached to the thyroidal junction below.

From the anterior and lingual face of the epiglottis, directly in the middle line, is stretched a small sharp bordered membranous fold continued to the base of the tongue, joining the raphe of that organ as though the two might be continuous. This is the glosso-epiglottic fold, or posterior frænum of the tongue, or frænum of the epiglottis, and it encloses the glotto-epiglottic ligament, the bridle rein forcing the epiglottis to participate in the movements of the tongue. Some muscular fibres from the tongue can sometimes be traced in this frænum, which in some lower animals incloses a pair of muscles. To each side of this fold, which is strongly raised when the tongue is thrust forcibly forwards, there is seen an indentation, sometimes shallow, oftener deeply depressed, presenting in shape and size very much such an appearance as would remain moulded in plastic material

* Lest laryngoscopists should take exception to the employment of this improper term, the writer would state once for all that in the present series of papers he will retain the phrase "false vocal cords," inasmuch as it will be familiar and significant to the majority of those practitioners whom his articles will reach. He would prefer to substitute for the objectionable terms *true and false cords* the phrases *ventricular folds* and *vocal lamina* as more descriptively suggestive.

after moderate pressure from the tip of the finger. These are the *lingual sinuses*, the glosso-epiglottic fossæ or sinuses, the valleculæ of Tourtual. When shallow they gradually become lost in the lateral border of the tongue, but more frequently they are strongly depressed at the frænal outline, and becoming shallow are bounded exteriorly by a sharp fold of the mucous membrane of the side of the tongue, then called the lateral glotto-epiglottic fold. These lateral folds inclose no ligament, and though generally described as existing post-mortem, are very frequently absent in the living organ (first laryngoscopically demonstrated by Merkel); and it is affirmed by Luschka that when existing they join the sides of the pharynx, an anterior leaflet only being continuous with the mucous membrane of the tongue. Von-Bruns states that in the floor of these sinuses he has been able with the laryngoscope to discern the position of the root of the greater horn of the hyoid bone, which appears as a clear longish oval projection behind and stretching outwards. These lingual sinuses often afford lodgments for articles of food, pins, tacks, and other foreign bodies, and are very frequently attacked by disease. Dr. Horace Green of New York has expressed the opinion that *tuberculous degeneration often commences here*, and Lewin of Berlin reports cases of scrofulous degeneration and syphilitic ulceration of these sinuses. Dr. Elsberg of New York has placed on record a case in which long-continued throat disease had resisted topical applications to the larynx, but which the laryngoscope revealed to be an ulceration of these sinuses, soon healed by intelligent local treatment. A similar case recently occurring in the practice of the writer will be narrated hereafter.

The height of the projecting portion of the epiglottis will be found to vary with the size, age, and sex of the individual, from three or four lines to an inch, the average in the adult male being rather more than half an inch; and when erect, part of its laryngeal face will often curl over and present outwards. Its color is a light red veiling a yellowish white, being less pronounced at its edge where the color of the cartilage is more distinct, much like the color of a conjunctival membrane of the eyelid, to which it was likened by Stork. Posteriorly the red deepens, and the pad appears quite red. By artificial light the parts will have a deeper color than by sunlight, which must be borne in mind lest the diagnosis of congestion be improperly pronounced. The thickness of the epiglottis will vary from a sharp thin edge hardly a line to a thick stump of several lines, and when swollen it may be as thick as the finger. It is very variable too in shape; sometimes it is long, narrow, and pointed; sometimes very broad and short; sometimes very little curled; sometimes the sides roll in together posteriorly until they nearly touch; sometimes curled in with a contraction in the middle, which Türck has likened to the sides of a jew's-harp. All this must be remembered, or congenital irregularities may be diagnosed as alterations in form. Usually it is quite stiff, sometimes it is flaccid. It is sometimes quite erect, meeting the plane of the tongue at a right angle; sometimes its lingual face will be pressed back upon the base of the tongue; ordinarily it will be found to overlook the laryngeal entrance at an angle of from 40° to 60°, but it is sometimes much more depressed backwards, so that it may shut off a view into the larynx—and all this congenitally. When the tongue remains at rest upon the floor of the mouth or is only slightly protruded, its base presses the epiglottis over the laryngeal aperture, and then the free upper border of the cartilage will usually appear as a narrow band or stripe more or less arched.

The posterior wall of the pharynx appears beyond the laryngeal structures in the lower portion of the mirror, as a smooth glistening surface, sometimes striated in appearance, of an ashy red color, and presenting here and there small rounded or oval elevations, which are enlarged follicles; and in some positions of the mirror it can be seen its entire length, so that in the lowest part of the mirror and behind, about the position of the cricoid cartilage, we observe the posterior mucous surface of the larynx closely applied to the mucous membrane of the pharynx, affording no distinctive evidence of the opening into the œsophagus, other than a slightly arched transverse furrow marking by a dark line its point of commencement.

Outside the ary-epiglottic fold, between it and the inner face of the thyroid, we see the triangular *pyramidal sinus*, which begins on each side of the free border of the epiglottis as a small, dark, steep fossa, becoming more and more conical as it descends, until it is finally lost at one end of the transverse furrow marking the commencement of the œsophagus. The wall is defined to the outer side by the inner face of the plate of the thyroid, and above this the hyo-thyroid membrane and the hyoid bone; to the inner side, by the quadrangular membrane, which forms a vertical angle anteriorly with the wing of the thyroid; and behind, it is bounded by the posterior wall of the pharynx. It is lined by the common pharyngeal mucous membrane, and along its angular floor there is a chain of glands frequently involved in disease of these parts. These pyramidal sinuses are sometimes seen entirely clean, sometimes they contain mucus, and sometimes appear to contain a cheesy deposit; and they are frequently involved in pharyngeal troubles.

(*To be continued.*)

Original Lectures.

A LECTURE ON PUERPERAL CONVULSIONS.

DELIVERED, JANUARY, 1866, AT THE COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.

By T. GAILLARD THOMAS, M.D.,
Prof. of Obstetrics and Diseases of Women.

It would not be possible to give you a comprehensive view of the subject of to-day's lecture, without making some prefatory remarks upon convulsions in the non-pregnant state. In doing this I will be as brief as is consistent with a faithful exposition of the present state of pathology, on a point about which even now much diversity of opinion exists, and then occupy your attention with those varieties met with in the puerperal condition.

Definition.—The term convulsion may be defined as a violent, irregular, and involuntary contraction of muscles ordinarily under the control of the will.

Varieties.—From certain peculiarities they have been divided into two great classes—tonic and clonic. An attack characterized by lengthy and continuous muscular contraction is called a tonic convulsion, while one in which the spasm of the muscles is rapidly intermittent, is styled clonic. An example of the first class is tetanus, and of the second epilepsy.

The first of these varieties does not concern our present investigations; so leaving it out of consideration, we proceed at once to the second, which may be greatly simplified by a proper division and classification.

All clonic spasms, when fully developed, whatever be their form, may be grouped under three heads:

1st. Simple convulsions.
2d. True epilepsy.
3d. Epileptiform convulsions.

The first includes those convulsive seizures which are general, but are unattended by loss of consciousness, as hysterical and choreic. The second defines its own meaning. The third comprises those which resemble true epilepsy in loss of consciousness, and many other particulars, and yet differ from it in others, which prevent their being treated of synonymously.

Taking epilepsy as a type, as it may well be considered, we have named the third class from its resemblance to this type. In truth, the real difference which at present exists between the second and third forms is, that the second occurs habitually, while the third does not; and that for the second we cannot assign a cause, while for the third we can.

This may appear to be a singular ground for distinction, and yet it is the true one. Who, for instance, would call the convulsions due to teething or crude ingesta epilepsy? And who would not do so, if similar seizures occurred habitually and without ascertainable cause?

By some authors a variety of convulsive attacks besides these three, are cited, but I cannot agree in the propriety of their admission. For instance, "apoplectic convulsions" are spoken of. Now any severe eclampsia may produce apoplexy, which results from the great cerebral congestion accompanying the seizure; or the effusion of a clot of blood upon, or in the substance of, the brain, may by centric irritation produce epileptiform convulsions. But why call these apoplectic convulsions? In one case apoplexy is the result of an epileptic or epileptiform spasm; in the other it produces eclampsia of those varieties, and no one has the right arbitrarily to characterize these by a special name, any more than he would have to call those due to teething dental convulsions, or those arising from crude ingesta gastric convulsions. If it be meant that a peculiar kind of convulsion is very apt to result in rupture of a cerebral blood-vessel, a dangerous error is by this nomenclature promulgated, for, given a fatty state of those vessels, and any, even the slightest seizure, may result in that accident.

All the general and clonic convulsions, then, which you will meet with in practice, may be classed under one of these heads, let them occur in the child or the adult, the male or female sex, the pregnant or non-pregnant woman.

Having gone as far as this, you will be able to listen intelligently to the investigation of the question, to which of these three classes belong those seizures which occur in the pregnant or parturient woman, and which are known under the generic term of "puerperal convulsions."

I do not wish you to accept of my statement upon this subject, nor adopt my view with reference to it, without careful examination of, and reflection upon the grounds upon which I offer them.

As in the non-pregnant, so in the pregnant state, three varieties of convulsions may occur—the hysterical, the epileptic, and the epileptiform; and by many, any one of these occurring in the latter state would be styled puerperal convulsions. This term, however, should as far as possible be confined to those, not simply occurring in, but dependent upon the state of puerperality. We would not call an attack of pleurisy occurring to a lying-in woman puerperal pleurisy, but if there were a variety of that disease due to, or very much influenced by, the puerperal state, such an appellation would be highly appropriate. So with convulsions. Hysterical convulsions are common in all excited states of the female system, and occurring in the puerperal state, should be regarded as hysteria. Epilepsy, so far from depending in any degree upon pregnancy, is very rare at that time; and even the patient who is liable to that disease in the non-pregnant state, may escape its seizures during the puerperal.

With epileptiform convulsions, however, this is not the case; they are often, in fact generally, due to this state, and seldom occur in the adult without its influence. Therefore the term puerperal convulsions should, I think, convey to the mind of the hearer the idea of eclampsic seizures of epileptiform character; not of hysteria, not of true epilepsy, nor yet of apoplexy; but of a seizure *dependent on and due to the state which gives it its distinctive name.*

This, then, is the restricted signification which I would have you always give to the term puerperal convulsion.

Causes of Epileptiform Convulsions.—The causes of epileptiform convulsions may be enumerated as—

(*a.*) Reflex or eccentric irritation, as from dentition, crude ingesta.

(*b.*) Centric irritation, as in cerebral disease, meningitis, pressure on the brain, etc.

(*c.*) Poisoning of the blood by bile, urine or some of its constituents, carbonic acid, alcohol, etc., etc.

(*d.*) Specific poisons, as lead, strychnia, the various narcotics, etc.

(*e.*) Disorder of the cerebral circulation, as from congestion, anæmia, etc.

Any one of these causes existing in sufficient degree in the non-pregnant state would produce epileptiform convulsions, and existing even in less degree they would likewise do so in the pregnant, when the nervous system is in a plus state of excitability, and the reflex influences more than ordinarily acute. At the same time that I admit that any of these causes *may* produce puerperal convulsions, I wish with the utmost distinctness to state my belief that, in the vast majority of cases, poisoning of the blood by some of the constituents of the urine is the great cause of the seizures. I admit the other causes mentioned, not upon the evidence of old writers, who, not being awakened to the frequency of this cause, did not seek for its existence, but upon that of modern observers, who have carefully tested the urine and blood before drawing their conclusions.

For that class of cases reported in such large numbers, however, as being due to some indiscretion of diet, or to pressure of the head against the os uteri or vagina (which of course exists in every case), without any interrogation of the renal secretion for disorder of the kidneys, I have not the slightest respect. However full of sound they may be, they signify nothing; or at most, all that we should admit with regard to them is, that the irritation charged with the whole evil is only an exciting cause; the great predisposing one having been undetected, probably because unsought for.

While house-physician in Bellevue Hospital, a young man of robust frame and great muscular development, with every appearance of having enjoyed excellent health, was brought into the wards under my charge in an insensible condition, and presenting the phenomenon of violent epileptiform convulsions. I say the phenomenon, for it is really one to see a perfectly healthy man suffering from true epileptiform convulsions. I could not account for the attack, and treated him upon general principles, among other remedial measures using an enema of oil and turpentine. This acting, about a gill of cherry-stones was discharged, with very little fæcal matter. The patient died, and, upon a post-mortem examination, nearly a pint of stones was found in the caput coli, the ascending colon, and the ileum. Now, as it is a perfectly fair and rational conclusion that these stones caused

the convulsions which produced the death of this healthy and powerful man, it would be irrational to say that they would not have produced a like result in a hyperæsthetic and excitable pregnant woman. Nevertheless, as such results from such causes rarely occur in the non-pregnant, so do they in the pregnant state.

I have never met, in my own practice, with puerperal convulsions, where uræmia was not the undoubted cause.

You may then, I believe with safety, fix in your minds the following as an axiom; as a rule, puerperal convulsions are due to uræmia; as a rare exception to this rule, centric or eccentric irritations may be causes of them.

You will recognise in the fact which I have just stated relative to the connexion between uræmia and puerperal convulsions, one of great importance, a knowledge of which has already saved many lives, and will in the course of time save many more. A half century ago, Hamilton and Demanet noted the fact, that anasarca was very apt to be precursory of puerperal convulsions; but to Drs. Lever, of London, and Simpson, of Edinburgh, belongs the glory of having solved the important problem which has since done such service to humanity. Their views were published simultaneously in 1843, and since that time abundant corroboration has been furnished by many of the first pathologists of our day.

Pathology of Uræmic Puerperal Convulsions.—It is probable that as the pregnant uterus rises in the abdominal cavity, it exerts a hurtful pressure upon the kidneys, preventing venous flow from them, produces congestion, and thus impairs their eliminative function.

From this, results a discharge of albumen in the urine, and an accumulation of some of the elements of the urine in the blood. What the poison is, the collection of which, in the blood, produces the peculiar nervous manifestations which follow, is not clearly ascertained, although numerous experiments which are being constantly instituted for the elucidation of the fact, are surely bringing us nearer and nearer to a just appreciation of it. By some, it is supposed that urea is the toxic agent, but this view is opposed by the weighty names of Bright, Johnson, Frerichs, Rees, and others.

It was Frerichs, I believe, who first promulgated the view that the urea accumulated in the blood undergoes a decomposition which results in the formation of carbonate of ammonia, which is the hurtful agent.

M. Trieste has advanced an extremely ingenious and plausible view, to the effect, that this decomposition does not occur in the circulating fluid, but that the carbonate of ammonia forms on the mucous membrane of the intestinal canal, and is subsequently absorbed. This receives corroboration from a statement by Bernard and Barreswill, that this substance is found in the intestines of animals the kidneys of which have been extirpated.

Etiology.—I mentioned just now that pressure of the enlarged uterus upon the kidneys was probably a cause of the disordered function of those organs. There is some other agency, however, which must be regarded as active, for tumors and fluid accumulations in the abdominal cavity, which exert the same or greater pressure, do not produce a like derangement. This influence is to be found, I think, in the peculiar state of the blood produced by pregnancy. A misconception was for a long time prevalent among physicians with reference to the state of the blood in pregnancy, many regarding it as being in a state of greater richness than that of the non-pregnant condition; in other words, it was supposed that the pregnant woman is plethoric. Now, if the term plethora is employed to signify a "fulness," or great amount of circulating fluid, this is true; but it is not so if it be used, as it often is, to indicate that the blood is rich in red corpuscles. Andral and Gavarret, Becquerel and Rodier, and other equally eminent men, have analysed the blood of numbers of pregnant women, and pronounced it to be, on the other hand, in a watery state, which receives the name of Hydræmia.

The following are the statements of Becquerel and Rodier: "Recherches sur la Composition du Sang, 1844." "These are the alterations which it (*i. e.* the blood of pregnancy) undergoes:

Diminution of the density of the blood defibrinized, and of that of the serum.

Increase in the proportion of water.

Great diminution in amount of the globules.

Slight increase of the fibrin.

Diminution of the albumen of the serum, etc.

Dr. Rees believes that such a state of the blood is peculiarly conducive to the action of this toxæmia; and Dr. Todd, in his Lumleian Lectures on Delirium and Coma (*Med. Gaz.*, 1850), makes a similar statement. It is not unlikely that both of these causes are active in bringing about the results.

The occurrence of convulsions with first pregnancies is much more frequent than with subsequent ones; a fact which is probably due to the rigid and unyielding abdominal walls pressing the uterus more firmly against the kidneys than they would do in multiparous women, in whom they are lax and yielding.

Lachapelle had	⅓	of her cases with	first pregnancies.
Ramsbotham	⅔	of his	" " "
Merriman	28 out of 38	"	" "
Collins	29 out of 30	"	" "

Dr. Tyler Smith remarks: "It is a very old and true observation, that convulsion is often met with in single women whose minds have been depressed by the sense of shame and misery inseparable from their condition during gestation." I would suggest as an explanation of this "old and true observation," much more accordant with the enlightened pathology of the time, that unfortunates thus circumstanced are anxious to conceal their shame, and, by tight lacing, press the uterus with great force against the kidneys and disorder their eliminative action.

Premonitory Symptoms.—Of course it will always be very important for you to recognise the fact that your patient runs a risk of convulsions at as early a period as possible, in order to establish, as soon as your suspicions are excited, a course of preventive treatment. Let me strongly recommend to you, through your obstetric careers, to examine the urine of every pregnant woman who shows symptoms which cannot readily and satisfactorily be accounted for by the mere existence of the puerperal state, and do this more especially if œdema of the face or feet should be noticed. There are so many obscure symptoms which you will find due to puerperal uræmia, that I advise you not to wait for your suspicions to be aroused with reference to renal disease, before testing that secretion, *but always to do so as a matter of routine in the diagnosis of puerperal disorders.* Should you, after such an examination, in any period of pregnancy find the urine albuminous, and more especially should the microscope reveal in such urine tube-casts or renal epithelium, always be watchful for the occurrence of eclampsia of dangerous character, and put your patient upon preventive treatment.

Do not understand me that, whenever albumen and tube-casts are found in the urine of a pregnant woman, she will have convulsions; this is by no means true, for in the vast majority of cases they will not occur, and that, too, without special preventive treatment.

In twenty cases of puerperal albuminuria, Devilliers and Regnault had eleven cases of convulsions. Out of

forty-one cases, Blot had only seven cases of convulsions; and Cazeaux gives the proportion as one-fourth or one-fifth.

The knowledge gained from an examination of the urine will generally be the only reliable information we can get at any period distant from the attack, but just before the attack occurs there are a number of premonitory signs which will excite our suspicions. Among these may be mentioned drowsiness, fretfulness, despondency, dizziness, violent headache, partial anæsthesia, amblyopia, muscæ volitantes, impaired vision, substernal or epigastric uneasiness or anxiety, with a sensation as if of sinking, tinnitus aurium, deafness, and stertorous breathing during sleep. Study the symptoms of uræmia in the male, and you will find them identical with these.

Symptoms of the Attack.—You will be at no loss for a diagnosis, even in your first case of this terrible malady, for there is nothing with which you could confound it, except with a similar seizure due to hysteria or epilepsy. In the beginning your attention will be attracted to the patient by a turning over of the eyeballs, so that only the whites remain visible; then the inferior maxilla will be drawn to one side, the lips puckered so as to cover completely the teeth, the head turned upon the neck, the occiput drawn towards the spine, and soon the flexor muscles of the arms act powerfully upon those members, flex the fingers, and bring the forearms upon the chest. All these contractions take place in rapid succession, and for a time the convulsion seems tonic in character; but soon the arms jerk violently, the head is moved rapidly upon the neck, the jaws open and close with great force, a deathly pallor or lividity overspreads the face, froth more or less deeply tinged with blood oozes from the violet lips, the woman begins to take full and stertorous inspirations, and the seizure passes off. After a short sleep the patient will awake, look confusedly at her alarmed attendants, and perhaps in a half-conscious manner ask what has occurred. This attack will, after an indefinite time, be followed by another, and after two or three have occurred, consciousness is generally abolished in the intervals, and stertorous breathing and a semi-comatose condition last from fit to fit. The number of convulsions which may occur before the case terminates, the frequency of their occurrence, and the severity which characterizes them, will of course depend entirely on circumstances governing each individual case.

Frequency.—Fortunately, this dangerous complication of parturition is not of frequent occurrence. In one thousand deliveries at the "Hospital of the Clinic," Velpeau met with not a single case; but this exemption was remarkable, the estimated proportion being about 1 in 485 deliveries.

Differential Diagnosis.—The differentiation of true puerperal convulsions from the epileptic and hysterical seizures which may occur in the puerperal state, is based upon the same principles which would govern the same distinction in the non-puerperal condition. That it is true epilepsy, will be known by the fact of the patient having been liable to attacks of that nature previously, and the conclusion thus based would be strengthened by discovery of a healthy state of the urine. Hysteria will be recognised by partial consciousness during the attacks, by their lengthy duration, by their slight intensity, and by the general hysterical behavior and character of the woman. There is a peculiarity in hysterical seizures which can be gathered by observation but cannot be written, which will generally enable the physician to determine as to the true nature of the case, though sometimes the most skilful diagnostician is puzzled to decide.

Prognosis.—The prognosis of true puerperal convulsions is very grave for both mother and child.

According to Braun, one-third of the mothers die; according to Churchill, one-fourth; and Romberg says one-half. In my experience, one-fourth have died.

It is a very significant fact, that those cases of uræmic convulsions accompanied by œdema are not as dangerous as those not thus accompanied. The reason appears to be, that the effused serum contains an appreciable amount of urea, which is thus got rid of by the blood. Of 4 cases without œdema, Blot lost 3; of 3 cases with œdema, he lost 0. In 2 cases without œdema, Regnault and Devilliers lost both; of 9 cases with œdema, they lost 5. Cazeaux gives the mortality of those cases with œdema 11 in 55 + ; of those without it, 7 in 15.

Unfavorable as is the prognosis for the mother, for the child it is more so. It may be stated, that it is an exceptional occurrence for a child born of a mother who has suffered from even a few violent convulsions, to live.

Causes of Death.—The attacks may recur with varying rapidity and severity, until the exhausted patient is destroyed, or the very first convulsion (as in a case recorded by M. Depaul) may snap the thread of life. In addition to exhaustion from oft-repeated attacks, the life of the woman may be destroyed by apoplexy, the result of rupture of one of the cerebral blood-vessels; asphyxia, the result of spasm of the glottis and muscles of respiration; intra-cranial or pulmonary serous effusion, the result of transudation through the walls of the distended capillaries; coma, the result of cerebral congestion; or paralysis of the heart, the result of violent spasm of that organ.

I was for some time under the impression that death was attributed to the last of these causes, upon grounds which were purely theoretical; but witnessing a case in which I believe that death thus occurred, has caused me to change my mind. The case was this: a young Irish woman, to whom I was called by the late Dr. Murphy, of this city, was suffering from repeated attacks of the most violent convulsions. I was standing by her side, with my fingers on the pulse, which was beating with a fair amount of force, when a seizure took place. It passed off, and the heart, beating once or twice very feebly, ceased entirely to act in less than ten seconds. We had here no evidence of injury done to the brain; the woman did not die of asphyxia or exhaustion, and I know of no way in which to account for the sudden death than by supposing that the heart, overcome by violent spasm, refused to perform its function. Even if great cerebral lesion had occurred, death from it would not have been so instantaneous. Persons affected by apoplexy never die *instantaneously;* those who die of cardiac disease often do. In the case just detailed I performed the Cæsarean section, but the child was dead.

If the patient seems to be improving, and the convulsions have ceased, a prognosis with reference to the probabilities of their return will depend, I think, more upon the amount of albumen found in the urine than upon anything else. Should this substance diminish rapidly, a very favorable prognosis may be made; but never should the patient be regarded as out of danger until it entirely disappears.

As regards the prognosis to be made with reference to the probabilities of a return of the kidneys to a healthy state after delivery has taken place and the convulsions ceased, I should say that it should be generally decidedly favorable.

Causes of Infantile Mortality.—The causes for the great infantile mortality observed in such cases are these. The placenta, compressed by abdominal spasm,

and supplied by poisoned blood, ceases to exert a proper influence on the blood of the fœtus; or the child, suffering from uræmia like its parent, may die of intra-uterine convulsions. Even if born alive, its chances for life are not good, for many infants thus circumstanced die within the first twenty-four hours of their existence.

Preventive Treatment.—Having been led to believe that there is a probability of the occurrence of puerperal convulsions in any case, these are the best means for avoiding the disastrous issue. Let the diet be light and nutritious, and let it consist of very little animal food; see that the bowels are kept very regular by means of saline cathartics; direct the patient to take regular exercise in the open air, avoid late hours, heated rooms, exciting company, and stimulating drinks; and keep the skin as active as possible by occasional warm baths, friction, and appropriate clothing. But above all, let the patient be delivered under the influence of chloroform, unless some very powerful objection should exist to its use.

By these means you will often be able to prevent the occurrence of threatened convulsions, if you are forewarned of the threat a sufficient time before the development; and in some cases you may prevent the issue, even if you are made aware of its approach just before the attack occurs. Let me give you an example of what I consider a case in which convulsions were prevented. Mrs. S., a lady who had borne two children, had passed through her third pregnancy without much trouble, and sent for me one afternoon in December, 1860, on account of commencing labor. The os was just beginning to dilate, and supposing that the labor would come on during the night, I retired to an adjoining chamber, requesting the nurse to call me when the parturient process should have progressed so far as to make my presence necessary. About five the next morning, Mrs. S. sent for me on account of a very violent headache, which had caused her to cry out, so great was its severity, and when I saw her she was rocking herself to and fro, and complaining bitterly. The nurse drew my attention to the fact that her face had become much puffed, and told me that during the night she had complained of ringing in the ears, flashing before the eyes, and great nervous trepidation. At that moment she complained of great dizziness, and stated that the figures of the carpet seemed to be rapidly revolving. She was not an hysterical, or even a very nervous woman.

The pulse was full, almost bounding, and somewhat accelerated.

Obtaining some of her urine, I examined it with heat and nitric acid, and found that it was loaded with albumen.

I now administered a very active saline cathartic, caused the patient to keep her bed, and got some chloroform ready for use. I did not employ it, however, because her husband was very violently opposed to it. The labor progressed steadily, when just about the end of the first stage, a slight twitching was observed in the muscles of the face, and very slight turning of the balls of the eyes. She was now instantly put under the influence of chloroform, and kept so to the end of the labor, which was happily concluded for both mother and child. It may be said, with reference to my conclusions in this case, that they are illogical, from the fact that, even without the use of chloroform, she might have escaped what I deemed so imminent. This I allow, but I submit that few cases with so much albumen in the urine, and fewer still with so well-pronounced rational signs, escape the climax. I have always felt a conviction that without the preventive means adopted, that lady would have passed through a fearful ordeal, which was by them avoided; and this is not an isolated case in my experience, but is mentioned merely as a fair type of a class.

I cannot leave the subject of preventive means without offering for your consideration the question of the propriety of the induction of abortion or premature labor in those cases where the uræmic poisoning is very great, and is evidently increasing as pregnancy progresses. It appears to me to be always well worthy of consideration. I have had several cases in which I think that the maternal and fœtal life have both been saved, by induction of labor at the beginning of the eighth month, which would have been jeopardized at the end of the ninth.

Treatment of the Attack.—As the treatment of the attack will primarily consist in closing the avenues by which death may approach, let us see what these are. They may be thus recapitulated:

a, Apoplexy.
b, Asphyxia.
c, Serous effusion.
d, Coma.
e, Exhaustion.
f, Paralysis of the heart.

In view of these, the indications of treatment may be enumerated as follows:

1st. Check the convulsive action at once, and thus prevent death by asphyxia, or the cerebral conditions resulting from congestion and failure of the heart to perform its function.

2d. Diminish vascular turgescence and excessive action, and thus remove the great liability to apoplexy and coma.

3d. Evacuate the uterus, if possible, because experience has proved that in the majority of cases the seizures will then cease, and because we thus remove pressure from the kidneys.

4th. Eliminate or neutralize the poison accumulated in the blood.

To accomplish the first of these indications, no means is at all comparable with the anæsthetic influence of chloroform. Blood-letting is far inferior to it in its results, much more unreliable, and accompanied by much greater dangers. No greater boon could be conferred upon the obstetrician than the power of controlling these terrible convulsive seizures, and I do not believe that I exaggerate when I say that in many, nay, most cases, such a power exists in chloroform. Ether, from the stage of excitement which it produces, is not so applicable to these cases, and in some instances I have found its use entirely inadmissible, while chloroform has accomplished immediately all that I desired. If serious injury, such as effusion of serum or blood, has taken place in the brain, anæsthesia will probably accomplish nothing; but if it be resorted to early and fearlessly, its results will surprise you.

So anxious am I, gentlemen, to fix what I believe to be a proper impression upon your minds concerning this important point of our subject, and at the same time not to say more than my experience warrants me in asserting, that I will beg your attention to the account of three cases which illustrate the matter more fully than any other means would do.

I was called to a primipara whom I had delivered six weeks before, and who had, subsequently to delivery, suffered from a slight attack of puerperal mania, and found her suffering from a most intense headache, dizziness, and confusion of mind. Her pulse was so full, and her general appearance aroused my suspicions of approaching convulsions to such a degree, as to lead me at once to test the urine, which I found to be loaded with albumen. I immediately went for chloroform,

and returning, found her in a fearful convulsion, which, in spite of the efforts of her attendant, had thrown her from her bed to the floor. As soon as it passed off, I put her fully under the influence of chloroform, which quieted her, and she slept placidly for about two hours. Her family appearing very apprehensive about so free a use of the anæsthetic, I then agreed to discontinue it, to learn whether the seizures would return. No sooner was she fully awake than another, if possible more violent than the first, came on. This I tried three or four times with the same result, and the patient was kept more or less under the influence of the anæsthetic for about forty-eight hours. During this time, she would sleep quietly for one or two hours at a time, without the inhalation of the drug, and her strength was sustained by nutritive enemata. She recovered, and the albumen gradually disappeared from the urine.

The two other cases I saw with the late Dr. John W. Francis, and so closely do they resemble each other that they may be related together. Both were primiparæ; in both the lancet was freely used, without checking the convulsion, which really seemed to me to increase under the sanguineous loss, and in both chloroform acted most perfectly. Dr. Francis was at first much opposed to its use, but seeing that all other means had failed, and knowing that death would surely be the result if the oft-repeated and very violent attacks were not checked, he consented to its use, and in neither case did he hesitate to admit that the successful issue was due to its influence. One of these ladies was kept under it for about eight hours; the other about sixteen hours. In the latter, the cessation of the anæsthetic effect on two or three occasions resulted in return of the eclampsic seizures, as it did in the first case related.

To obtain the full results of anæsthesia under these circumstances, the influence must be kept up steadily and unintermittingly for twenty-four, forty-eight, or a greater number of hours, if necessary.

I do not mean that the patient must be all that time under its full influence, but that she should be sufficiently under it to effect the object in view, if it can be effected by this remedial means. But one person cannot do this, and I think that, in these cases, a capable assistant should always be associated in the case, whose entire time can be given up to it.

Should it be absolutely necessary, an intelligent non-professional assistant may be intrusted with the administration of the chloroform; but this is attended by risk, and should never be done until that individual is properly instructed by the physician, and made to gain some experience in his presence. You may say that there must be a good deal of risk in this. I answer, there is less than in leaving the patient without the anæsthetic influence, and it is only in the face of this alternative that it should be done.

If anæsthesia controls the convulsions, blood-letting should not be resorted to. Should it fail to do so, it should then be taken into consideration, and decided upon by the same reasons which would govern such a decision concerning it in pneumonia or any other diseased condition. In other words, you should not bleed because the patient has puerperal convulsions, but because some special indication, as plethora, or too violent vascular action, for example, should point to its necessity.

Remember that, although the pregnant woman be hydræmic, she may at the same time, in one sense of the word, be plethoric; that is, there may exist an excess of blood in the system. This is called "serous plethora," and may be temporarily much relieved by the lancet, although the secondary effect of the loss is to increase the state of hydræmia. Venesection may be performed, for two reasons, in abnormal states of the circulatory system: first, to alter the state of the blood; and second, to diminish the mass which is passing through the blood-vessels, which are perhaps distended by its great amount. In puerperal convulsions it effects good results (when it does so at all), by accomplishing the second end at the expense of the blood's chemical state.

It is not against blood-letting that I wish to guard you, but against its indiscriminate and invariable employment; and this I do because I feel convinced that I have seen much injury done by the lancet under these circumstances. Still, I do not hesitate to employ it in those cases where I find it necessary to accomplish the second of our enumerated indications, namely, the diminution of vascular turgescence and action.

We now approach the third indication, the evacuation of the contents of the uterus. If any general rule of action could be given with reference to this point, it should, I think, be to this effect: if the os has begun to dilate, encourage and hasten the labor so soon as the convulsions are at all controlled; should the woman not be at term, endeavor to manage the case without the induction of labor, leaving it as a dernier ressort, but practising it when other means fail to check the returning seizures. I have seen a case in which chloroform entirely quieted violent convulsions coming on at the eighth month, and the lady went to term, and was delivered without a return, but subsequently died from other effects of uræmia. Her child died at the time of the convulsions, and was putrid at the time of birth. If you deem it advisable to bring on or hasten the labor, pass a sponge-tent into the os uteri; use the warm douche freely against this and the encircling fibres of the os, and employ Barnes's dilators. Should the os be dilated, stimulate the fibres of the uterus, by placing a gum-elastic catheter between the membranes and the uterine body, or deliver by version or the forceps.

Sometimes the bag of waters may be ruptured with advantage.

When the head of the child gets within reach of the forceps, my impression is, that it is generally safer to deliver it, for every moment's delay adds to its danger. This should of course be done only when the fœtal heart is heard distinctly to be acting, for the operation is here performed for the child's benefit alone.

The means adapted to the accomplishment of the fourth indication are these. The kidneys being crippled in their functions, press other emunctories into service, and make them supplementary to these organs. I told you that Bernard and Barreswill had found the mucous membrane of the alimentary tract to be covered with carbonate of ammonia, and that Trieste supposes that from this part of the economy it is absorbed into the system. However this be, it is advisable to act freely on that surface by active cathartics. If the patient can take them, I give by preference the salines; but if she cannot swallow, croton oil may be employed. The skin is often largely supplementary to the kidneys, and this should be made to act by the hot-air or vapor bath. In addition, dilute citric or benzoic acid should be freely given, with the hope of forming in the blood citrate or benzoate of ammonia. The former may be given in the form of lemonade.

Sometimes, in the convulsions occurring after delivery, opium in full dose is found highly useful, but its use requires great caution. I have in a number of cases obtained the best results from producing profound anæsthesia by chloroform, and then by the hypodermic syringe injecting under the skin a solution of morphia.

You may be struck by the fact that I recommend, in enumerating remedial measures, only very prominent and important ones, and leave many others which are ordinarily advised, as, for instance, asafœtida, valerian, camphor, the use of sinapisms, cold effusion, etc., etc., unmentioned. My reason for this is the belief that, ordinarily, perfect quiet, silence, and absence of light, are more important adjuvants than they, and that the physician should studiously avoid disturbing his patient by doubtful means. Some years ago, to demonstrate the importance of such quietude, I immersed a number of half-grown frogs in a jar of water which contained strychnia. They were, after a little while, seized with violent convulsions, and removing them, I placed them, in the presence of the class, under a bell-jar. As long as all was quiet, the little animals were free from spasms, and seemed instinctively to be keeping very still; but no sooner did I tap upon the glass or remove it and blow very gently upon them, than they would be violently and repeatedly convulsed. I once heard Dr. Marshall Hall say, that having poisoned a young terrier with this drug, he could smoothe his hair down without causing spasms, but every time that he passed his hand in a contrary direction and rubbed the hair upwards, convulsions would take place. This he addressed to a house-physician at one of the hospitals in this city, who was at the time applying mustard and friction to a patient who was suffering from uræmic convulsions. Bear it in mind when you are prompted to harass and annoy your patients with the hope of removing the tendency to coma by revulsive means. There are, however, circumstances in which these means may be indicated. In concluding, let me, with the hope of leaving a complete picture on your minds, place before you a synopsis of the treatment of puerperal convulsions:

1st. Bring the patient fully under the influence of chloroform.

2d. *If the indications demand it*, practise venesection.

3d. If labor has commenced, hasten it. If it has not, endeavor to avoid the necessity of inducing it; but if you cannot, do not hesitate too long about its accomplishment.

4th. Act freely on the bowels and skin, apply cold to the head, and give lemonade freely, if the patient can swallow.

5th. Bear in mind that the prolonged use of chloroform is not near so likely to kill as a return of the convulsions is.

Reports of Hospitals.

BELLEVUE HOSPITAL.

TWO CASES

OF COMPOUND FRACTURE IN WHICH THE WOUND UNITED BY ADHESION.

SERVICE OF DR. STEPHEN SMITH.

REPORTED BY N. S. WESTCOTT, M.D., HOUSE-SURGEON.

CASE I.—Wm. Purdy, æt. twenty-three, native of Ireland, by occupation a hostler; admitted July 25, 1866. About five hours before admission he was kicked by a horse on the inside of left arm. The blow produced a compound fracture of the humerus, about four inches above the elbow. The wound was on the outside of the arm, about half an inch in length, and was bleeding freely when the patient was admitted. On introducing a probe the ends of the bones were easily felt.

The patient was immediately placed in bed, with the arm supported on a cushion, after which the lips of the wound were pressed together and hermetically sealed by alternate layers of collodion and oiled silk. Two rectangular gutta-percha splints were then carefully moulded and applied, the one on the anterior and the other on the posterior aspect of the arm, reaching from the wrist to the shoulder, and secured by strips of adhesive plaster. Dressing to be loosened as swelling increases.

August 5.—Dressing partially removed. The layer of oiled silk and collodion found a little raised and loosened from the skin by small vesicles or blebs which had formed around and under it. Wound united. Dressing reapplied, and patient allowed to go about with arm in sling.

The bone united, and the wound healed firmly by August 18. Passive motion given to elbow, and dressing reapplied. On August 29th fracture again examined. Union of bone firm and no deformity. Skin smooth at point of fracture. Patient discharged.

CASE II.—John Conroy, æt. thirty-nine, native of Ireland, laborer, and intemperate; admitted September 24, 1866, at two o'clock A.M.

On the evening before admission, while intoxicated, he fell down stairs and fractured the tibia and fibula of his left leg, about five inches above the malleoli. The tibia was fractured obliquely, downwards and outwards. When admitted to the hospital the fracture was compound, but it could not be determined whether the wound was produced by the fall, or whether it was the result of subsequent attempts to walk. The patient being furiously drunk, nothing was done but to place him in bed with the limb secured in a fracture-box.

At nine A.M., seven hours after admission, the patient being quiet, a further examination of the limb was made, which revealed a good deal of contusion about the point of fracture, and an opening in the flesh large enough to admit the finger. The wound was then sealed with oiled silk and collodion as in Case I., the limb replaced in the fracture-box, and evaporating lotions ordered to be applied.

October 6.—There has been no discharge from the wound, and the materials used to seal it still remain firmly adherent to the skin. There has been a good deal of swelling and ecchymosis in the neighborhood of the fracture, but it has now nearly subsided. Sole-leather splints applied to-day, encircling the foot and leg, and extending to the knee. The patient was allowed to go about on crutches, in the course of four days following.

October 26.—Dressing removed; covering still firmly adherent over wound; union of the bones has taken place; dressing reapplied.

On the 30th of November the parts were again examined, and union of the fracture was found to be firm. The layer of oiled silk and collodion still remains where it was first placed, looking as if it had grown there as a part of the skin.

The importance of attempting to close the wound, in the treatment of compound fractures, is variously estimated by different authors in surgery. Astley Cooper, Chelius, Brunsby, B. Cooper, Gross, Dewitt, and Erichsen all agree substantially in the doctrine, that in all cases of compound fracture in which an attempt is made to save the limb, the primary object to be aimed at is to secure union of the wound by adhesion. To accomplish this, they recommend the use of adhesive plaster and collodion, or lint dipped in blood, collodion or compound tinctures of benzoin. Chelius says: "The truth of this doctrine is fully confirmed by even the most limited experience;" and also states that in rabbits it has been found almost impossible to produce suppuration in a compound fracture. Miller only directs us to close the

wound, if it at all approaches the incised in character. Hamilton's opinion is, that this should never be done where there is any bleeding or great contusion of the parts; and he also says: "If the severity of the injury warrants the supposition that much inflammation is to ensue, the danger of gangrene is greatly lessened by allowing the opening to remain as a channel of exit for the inflammatory effusions."

In Holmes's *System of Surgery* we find almost nothing said on this part of the subject of compound fractures. The same is true of Velpeau's Operative Surgery.

As a dressing for sealing the wound, the one composed of oiled silk and collodion probably possesses more advantages than the others above mentioned. In ordinary cases it can always be applied with neatness and precision; it forms a firm and perfect covering, and as it need extend but a little distance from the edges of the wound, it leaves the whole limb exposed to the eye of the surgeon.

TETANUS.—SPONTANEOUS RECOVERY.

SERVICE OF DR. FRANK H. HAMILTON.

REPORTED BY CHARLES H. LUDLUM, M.D., HOUSE-SURGEON.

ERNST MÜLLER, æt. eleven, was admitted into the hospital August 28, 1866. He was suff ring from an incised wound of the scalp on the right side, about six inches in length and almost as broad, exposing about an inch of the parietal bone. He received the wound on the day of admission, being struck by the wheel of a wagon. No arteries were tied, and only three or four sutures (silver) were applied. Erysipelas set in a day or two after admission, but disappeared in a week.

On September 6th he fell out of bed at night and received a small scalp wound, attended with considerable hemorrhage. A day or two after he complained of pain in the post-cervical region, which was found to be due to tonic contraction of the muscles. Consecutively the muscles of mastication and other parts of the body were similarly affected. The jaws could be separated scarcely half an inch.

Contraction of the pectoral muscles was excited by slight irritation. The abdominal muscles were tense, and he complained of pain on pressure. Opisthotonos, though occasionally present, was not at any time a marked symptom. The sardonic grin was marked when he attempted to speak. Examination of the urine revealed only some crystals of oxalate of lime.

September 20.—He has had several tetanic spasms, but is now improving; the opisthotonos has disappeared, the mouth can be opened to the extent of three-quarters of an inch, and he is almost free from pain.

September 23.—Bowels moved spontaneously, and continued to do so until discharged. He was able to walk around the ward by October 10, though some rigidity of the abdominal muscles still remained. He improved rapidly, and was discharged October 18. The scalp wound, which had progressed favorably during this time, was almost healed. All symptoms of tetanus had disappeared.

The case is worthy of note from the circumstance that the patient received no medication whatever during the course of the disease; no opium, no stimulants, nothing, in fact, except the house diet.

Another fact worthy of note is, that constipation was not a symptom in this case; the bowels moved spontaneously, or with the aid of a simple enema.

Query.—Is constipation a symptom of the disease, or due to the large doses of opium ordinarily administered?

Progress of Medical Science.

CLITORIDECTOMY IN ENGLAND.—According to the *Lancet*, Mr. Baker Brown was put upon the defence of his favorite operation, at a recent meeting of the London Obstetrical Society. Dr. Tanner's paper "On Excision of the Clitoris as a Cure for Hysteria," furnished the opportunity for a very lively discussion, in the course of which it was developed that the current of opinion ran strongly against the operation. The *Lancet* closes its note of the proceedings in the following forcible language: "Whilst we cannot but acknowledge that Mr. Brown defended himself with much spirit and no little skill in fence against the attacks which met him from every part of a crowded room, we are sure that, in a subject which excites such strong prejudice, something much more convincing than general assertions of success after indefinite intervals, or skilful appeals *ad justitiam*, will be required ere the profession will feel disposed to imitate a proceeding which if it be useless is a lamentable mistake, and if it be unnecessary is a cruel outrage."

HOW A MAN FREEZES TO DEATH.—M. Pouchet lately read an interesting paper on this subject before the French Academy of Science. The author's inferences are as follows:

(1) That the first phenomenon produced by cold is a contraction of the capillary vessels to such an extent that a globule of blood cannot enter; these vessels, therefore, remain completely empty. (2.) The second phenomenon is an alteration of the blood globules, which amounts to their complete disorganization. (3.) Every animal completely frozen is absolutely dead, and no power can re-animate it. (4.) When only a part is frozen, that part is destroyed by gangrene. (5.) If the part frozen is not extensive, and only a few disorganized blood-globules pass into circulation, the animal may recover. (6.) But if, on the contrary, the frozen part is of considerable extent, then the mass of altered globules brought into the circulation when the part is thawed, rapidly kills the animal. (7.) For this reason a half frozen animal may live a long time if maintained in this condition, since the altered globules do not get into the circulation; but it expires rapidly as soon as the frozen part is thawed. (8.) In all cases of congelation, death is due to the alteration of the blood globules, and not to any effect on the nervous system. (9.) It results from these facts that the less rapidly the frozen part is thawed, the more slowly altered globules find their way into the circulation, and the greater the chances of recovery of the animal.—*Exchange.*

CHRONIC METRITIS.—Kirsten describes the influence of this affection on the power of conception, as well as upon the course of pregnancy, parturition, and lactation. Scanzoni considered, contrary to the view of Credé, that the greater number of cases were completely curable where the disease existed in a mild form, or in one of middle grade of severity, and recommends the ever-repeated use of the actual cautery (*ferrum candens*), upon which he not unfrequently saw even repeated conceptions occur, with a normal course of pregnancy and parturition. Hennig added some observations as to the pathological anatomy of chronic metritis, which, in spite of its frequency, could be but very seldom studied, and then on death from coincidental diseases. Where recent cases have been examined, the disease was characterized by a constant increase of the connective tissue, the fatty degeneration of which is generally the only way to a cure. The deliquescence or disintegra-

tion of the new growth of connective tissue, next to the use of the actual cautery, is especially easily secured by caustic soda, nitrate of silver, liquor bellosti, and the use of douches with alkaline baths. Beck had observed after chronic metritis complicated with retroflexion of the uterus, repeated conceptions and parturition, and urged removal from the husband for a time, in order to render such a result possible.—*Braun's Jahr Büch., from the Monatsschrift für Geburtskinde*

The Value of Hypodermic Injections.—I take pleasure in saying that I have never used a remedy that so certainly allays pain as hypodermic injections. . . . The range of its use may not be very extensive, yet those cases where it may be used are a class that produce immense suffering, which may be almost instantly relieved by hypodermic injections. It is peculiarly applicable in all forms of neuralgia and chronic rheumatism, in the passage of bilious and nephritic calculi, dysmenorrhœa and hysteria, colic, bilious colic, spasm or cramp of the stomach, and other diseases of the alimentary canal when medicines are rejected by the stomach. . . .

I rarely commence using more than one-third of a grain (of morphia) with an individual unaccustomed to its use. If a dose should be too large, and produce symptoms of poisoning, we have an antidote in belladonna that may be introduced by hypodermic injections.—*Dr. E. H. Mason, Trans. Med. Soc. of Penn.*, 1866.

Gas from Apples.—The extraction of gas from the residue of apples used for manufacturing cider promises fine results in Normandy, Brittany, Jersey, Guernsey, etc. The light produced by it is whiter and better than that from coals.

Syphilis by Vaccination.—In the "Department du Morbihan," France, a great many children have been found affected with syphilis after vaccination. The report of the commissioners charged by the Academy of Medicine with the duty of investigating the subject, concludes as follows: I. Several of the children presented to the commission were really affected with *secondary* syphilis. II. It seems impossible to account for their contamination otherwise than by vaccination. III. It appears evident that the virus was contained in the vaccinal liquid. M. Ricord gives his assent to these conclusions, provided they contain (as well as the report itself does) the mention that primary syphilitic accidents were also present.

New Vegetable Poison.—Robin presented to the Academy of Sciences a note on the toxicological properties of the Boudon. It is an arbust of the family of the Apocynees. It is used to prepare the poisonous liquors given in judiciary duels by the judges of Gabon. The small quantity of the root received in Paris did not permit the successful analysis of the active principle; a little of it killed rabbits, dogs, and frogs. Its toxic principle is given out to water or alcohol. It acts, like nux vomica, mostly on the nerves of sensation, producing at first exaltation of sensibility, tetanic convulsions, and insensibility, and paralysis preceding death. It acts only secondarily on the motor nervous system; and not at all on the system of muscular contractility. Boudon is no poison to the heart, which, on the contrary, continues to beat some time after death has occurred. In several experiments, followed by very grave symptoms, even apparent death, the animal came back slowly to life.

Two Deaths Caused by Injecting Perchloride of Iron in a Nævus.—A girl, æt. thirty days, presented in the inferior half of the nose a nævus invading the side and the ala, trebling the volume of the organ. Cauterization and vaccination had failed; when perchlorate of iron was resorted to hypodermically. But no sooner had five drops been injected than the child uttered a cry, had a short convulsion, and expired. Autopsy demonstrated that the point of the syringe had penetrated into the transverse vein of the face; that blood had coagulated in the right cavity of the heart. Dr. Carter, who had the case, was apprised of a similar one by Dr. W. Cripps. These mishaps impose the obligation of completely interrupting the circulation in the vessels to be injected; and when this interruption cannot be effected, to abstain from using such preparations.

The Plagues of the Middle Ages.—The "Economie Politique du Moyen Age," a recent translation into French from the Italian of M. Louis Cibrario, gives the following graphic description of ancient plagues: In 168 of the Christian era a frightful pestilence, which penetrated into every part of the known world, was accounted for by the transport to Rome of the statue of Apollo after the taking of Seleucia. It was remarked that, like the cholera in our days, the plague had always come from the East. That which devastated Rome in 589 spared no class of society. Pope Pelagius was one of the first who fell a victim to it. The year following (590) it penetrated into France by Marseilles, and King Gontran, in a general assembly of notables, ordered a general fast to appease the anger of Heaven, when the only nourishment allowed to be consumed was coarse barleybread and water. The successor of Pelagius, Gregory the Great, ordered seven distinct processions, composed of clerks, monks, religious fraternities, married women, widows, and children. Still the plague was not allayed, and during a procession which lasted one hour eighty persons were struck down.

"One of the most cruel pestilences," says M. Cibrario, "was certainly that which, at the close of 1347, invaded England from the East, and in six years depopulated nearly the whole world. It was said to have been brought by Genoese ships into Sicily, and thence to Genoa and Pisa. In this last city there were not less than 400 deaths daily; and it was related, though it seems incredible, that at Orvieto and Sienna nine persons out of ten died. At Verona the twentieth part of the whole population was swept away, and in the other towns one-tenth. It was related that at Florence the number of deaths amounted to 60,000, and to 90,000 at Lubeck, where in the space of twenty-four hours 1500 persons died. It was then that the fable became current about poisoners—the most terrible of all popular fallacies, because it arises in a moment when the law and the magistrates are almost forced to adopt them; and when, if they have power to mitigate their effects, they have none to effectually repress them. The Jews were accused of having propagated the pestilence by poisoning the fountains, and were massacred by a furious populace. At Augsburg and in Dauphiné they were burnt alive."

There was also leprosy, which likewise came from the East, and which in 1321 gave rise to the most fearful and the most unreasonable persecutions of the lepers themselves.

Number of Cripples in England.—Although in England only about 3,000 cripples are born as such in the year, so many infants become so through neglect and penury, that it is estimated that the floating population of cripples in England is 100,000, of whom 39,000 at least are girls.

THE MEDICAL RECORD.

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New York, February 1, 1867.

THE STATE MEDICAL SOCIETY.

THE coming meeting of the Medical Society of the State of New York, will doubtless be as interesting as the one of last year. The Transactions for 1866, which we have so lately received, is full of most valuable material, and reflects great credit, not only upon those who have contributed so largely to enrich its pages, but on the Committee of Publication, for the faithful performance of arduous duties.

The management of the Society is now, we trust, in better hands than when a reasonably powerful clique pretentiously assumed the control of its affairs. If there is anything that is calculated to destroy the usefulness of members of an influential body, and dishearten them in their endeavors to do what they can to make a Society what it should be, it is the thought that the administration of its dearest and best interests is seized by a set of jealous individuals, who care only for the power they may bring to bear in carrying out their ends. Those who have made themselves acquainted with the affairs of the Society previous to the past two or three years, need not be told how, when, and where, this influence for evil has been exerted. Happily that time has now gone by, and certain gentlemen in Albany have no more to say concerning the government of the body than the most obscure member of a county society in the southern, central, or western part of the State. The offices of trust are now more evenly distributed, and the members have reason to be satisfied that everything is working harmoniously. In order that it may continue so, the selection for the highest offices should be made from different sections of the State. In the last election the southern district was favored, and if an equally happy choice can be made from the central portion of the State, no one, however ultra may be his views, can complain.

The interest which is being manifested in the yearly meetings is evidently on the increase, the attendance is larger, the papers are more numerous and better prepared, and there is less quarrelling over parliamentary usages. A Society which is so large and so influential, and being the only one, at least as far as we are informed, under the patronage of the State, cannot be expected to get along without considerable legislation; but even this can offer no argument in favor of the greater number of those sticklers for points of order, who hang about every scientific body, and who are almost always the longest and loudest talkers. If these gentlemen did not occupy time which could be more profitably employed, it would be well enough; but such is not the case, and the contemplation of the fact is anything but pleasant, when we consider that there is no remedy but an appeal to the good sense of the offenders. We are glad to notice, however, that during the past two or three years they have, by the force of circumstances and the "exigencies of the service," been materially decreased in numbers. There are still some of the old corps left, but we can afford to exercise a little charity towards them, in view of their small numbers.

The disposition to use up the time of any scientific body for any other than strictly scientific purposes, is, as far as the principle is concerned, radically wrong. The interests of every body of this sort are centred in the desire for self-improvement of the members, and the more practical information that is gained by the recital of cases, and the rehearsal of experience, the more profitable will be the meetings. The general sentiment of the profession is in favor of having less legislation and more of strictly scientific discussion; and we cannot see why this should not be favored in all Societies, great and small. The neglect to act up to this idea may in some measure account for a want of greater attendance of delegates and members at our annual State gatherings. Gentlemen who come hundreds of miles, and who neglect their business, wish to carry away with them something serviceable, some valuable addition to their stock of knowledge. It is to be hoped that the present session will be a notable exception in this respect, to any which have preceded it.

There is no good reason why the Society should not number among its working members every influential and distinguished physician in the State. It is, after all, a body which should lay claim to the greatest respectability, and most certainly, by its extensively circulated *Transactions*, is capable of exercising an influence hardly second to any in the country.

In order that the grand objects of the Society should be fulfilled, each county branch should be in healthy and vigorous operation. But a very small number of these auxiliaries are, however, in this condition. With too many their members do not assemble oftener than once a year, and then only for the purpose of electing their officers and delegates. There are very few county Societies in the State which could not call together, at least every two or three months, in some central locality, enough of their members to constitute a quorum for the transaction of business. If they come together less frequently, they are apt to lose the interest which they should have in the welfare of the association.

In the strictly rural districts, there is generally no other Society but that which belongs to the county; and when this is the case, the want of frequent meetings is a reflection upon the enterprise, industry, and intelligence of the members. Nothing can tend more towards the fostering of a friendly spirit among the profession of a particular neighborhood than a well ordered Society of this sort. But aside from this, the association of ideas, the liberal exchange of views, and the harvest of interesting experiences that can be gathered by the respective members and practically applied, admits of no comparison. Nothing, in fact, does the busy practitioner so much good as an opportunity to talk over his cases and solicit the opinions thereon of older men. This, of itself, is an argument of great weight, in favor of every medical man belonging to such a Society. Another reason why he should be a member of a Society, and that more particularly a county one, is on account of the protection to his rights as a medical man which he thus obtains. All those little misunderstandings, so liable to occur between different practitioners, can be either amicably adjusted, or if this be impossible, the matter can be referred to the parent society for adjudication. The dignity of the profession would by such a course be more surely maintained; the upright would rejoice in the satisfaction of having a recognised standard of professional excellence to measure their actions by; while those inclined to be irregular would at least respect a power which would be capable, in case of misdemeanor, of placing them outside the pale of respectability.

The few brief remarks which we have offered in connexion with this State Society, apply in the main to similar associations throughout the Union. Many of those of the Southern States have ceased to exist, but we are glad to see evidences of rejuvenation among the majority, and we hope that the time will not be far distant when every State Society shall be in healthful operation, and equal in usefulness, respectability, and power, to its venerable parent.

In conclusion, we again express the hope that the coming meeting of this Society may be a decided success; that all its deliberations may be carried on in that spirit of harmony which becomes it; and that every delegate and member may not regret his attendance.

A BILL contemplating a recognition of the evil of prostitution, and the issue of licenses for its practice under certain restrictions, has lately been introduced in our State Legislature. There is certainly material enough for philanthropic discussion, since, according to the estimate of the Metropolitan Police Commissioners as given in their annual report, this city alone is able to count the enormous number of twenty-one hundred houses of ill-fame of all grades, and twenty-five thousand courtesans; but we are to look for the mitigation in vigorous legislative enactments rather than in convention discourses, however rational. It is a vexed question of morals, not to say of political economy, which has descended to us from the ancients, but with the bane there has as yet come no antidote. Homes and asylums have, so to speak, treated only symptoms—their aim being rather to reform the penitent without any reference to the eradication of the evil. Assemblyman Jacobs in his bill therefore ignores the question of total suppression and addresses himself to the only practical one of restraint. He proposes to invest the police with power to demand that every girl whom they may see entering a known house of ill-fame shall exhibit a paper showing that she has been duly recorded as a public prostitute and in the event of her inability to produce such paper she is to be escorted to the Central Office, and there given the option of registering herself a public prostitute or of seeking an honest livelihood in the respectable walks of life. This at once appeals to any lingering feeling of delicacy, and it is to be hoped that not a few of these unfortunates will hesitate to thus announce their determination to pursue a loathsome trade. The system of registration, combined with that of safeguards against infection, which has long been in vogue in Paris, and was also enforced in New Orleans before the war, has, we are assured, admirably answered its purpose; but England, with characteristic sturdiness for the maintenance of personal liberty, has thus far taken no legal notice of the social crime. America is certainly very liberal also in her interpretation of individual rights, and to this more than to any real abhorrence for the legal toleration of what older nations have found incapable of suppression, are we to look for the defeat of the bill. But, notwithstanding our prejudices of education, agitation will here, as in the kindred question of pre-natal infanticide, finally culminate in reform.

WE are pleased to notice in several of our Southern exchanges, annotations of cases occurring in the experience of surgeons attached in various capacities to the late insurgent army. These histories, in the absence of original documents, that have been captured or destroyed, are reproduced from private note-books; and are valuable from the fact that they exhibit the workings of a medical department existing under the most adverse circumstances. In many cases, indigenous remedies were the sole reliances of the practitioner, who was forced, in the absence of very essential appointments, to tax his ingenuity to the utmost. The "vis medicatrix naturæ," which may be regarded as a convertible phrase for enforced sanitary laws, was accordingly most severely tested, and has not unfrequently surprised us by the success of its conservatism. In this way we have learned that tents, adopted at first from the exigencies of the case, were subsequently preferred for the treatment of the wounded, in large numbers, as by this means the potent agency of a vitiated atmosphere was almost eliminated. The observations upon Hospital Gangrene, continued as a serial by different writers in the *Nashville Journal of Medicine and Surgery*, and which are in reply to certain inquiries propounded

luring the war, are exceedingly valuable additions to he literature of the disease. Certain minds of a prac- ical turn may object to articles upon this and kindred subjects, as being inopportune, since the occasion for the application of principles thus discovered may not soon occur; but we claim that we owe something more than mere theories to posterity. Let notes be compared and the truths of medical science be vindicated; the mine is rich, and well worth the working.

Reviews.

A Treatise on the Practice of Medicine. By George B. Wood, M.D., LL.D., President of the American Philosophical Society, President of the College of Physicians of Philadelphia, Emeritus Prof. of the Theory and Practice of Medicine in the University of Penn., late one of the Physicians of the Pennsylvania Hospital, one of the Authors of the Dispensatory of the United States of America, etc., etc. Sixth Edition. In 2 vols. Philadelphia: J. B. Lippincott & Co. 1866. 8vo., pp. 1,968.

During a period of twenty years. Prof. Wood's work on the Practice of Medicine has kept the front rank among those of its class, and has been considered an authority. Since the first appearance of the work in 1847, five editions have been exhausted, and the sixth edition is now before us. Each issue received the number of additions and corrections which the state of the science at the time demanded, and the last comes to us so much improved, compared with the others, that the work is virtually a new one. This is not due to any very important changes in the great principles of the treatise, but in the incorporation of those new views of pathology and treatment, and in the introduction of newly discovered diseases, which during the past few years especially have so much enriched the science of medicine. The author, in his preface, truthfully says: "Perhaps in no period of medical history has there been greater activity in the cultivation of our science; and omitting a few great discoveries which have illustrated certain eras, the advances made within the last eight or nine years just elapsed, have seldom, if ever, been equalled, whether in number or importance, in the same length of time." With such views as these, the reader will not be disappointed in finding that the high character of the work has been kept up.

It will not be necessary to review the book as a whole, as the profession generally are sufficiently well informed of its character; our duty to our readers is simply comprised in a reference to the distinctive excellences of the present edition.

In the first place we must allude to the chapter on inflammation, which has been almost rewritten with the view of setting forth the doctrines of cellular pathology so lately and so ably advocated by Virchow.

Among the newly discovered diseases, or those affections which from circumstances connected with epidemic and other influences have assumed a new importance, trichiniasis, diphtheria, spotted or petechial fever, heat fever or sunstroke, camp diarrhœa, and locomotor ataxy, deserve special reference for the complete manner in which they are treated of by our author. His views concerning the first named affection do not differ from most authorities on the subject, and we pass on, content with what we have read of them, to the consideration of others of those maladies upon which, from extensive experience and observation, his opinions are more valuable.

Diphtheria is a disease which it is well known has extensively prevailed through different sections of our country, and much interest has been manifested to learn all that is positively useful in regard to its history and treatment. The chapter on this subject is well calculated to supply this want. He describes diphtheria as "a febrile, moderately contagious, asthenic disease, without characteristic eruption, and distinguished by a disposition to the formation of false membrane upon inflamed mucous surfaces, especially in the fauces. There is no other recognised disease having these characters." After giving a most elaborate history of the affection, and describing the different forms of the disease, under the general heads of mild, croupal, and systemic, he comes to that most interesting topic, the treatment. In the first place, he asserts that there is no certain or special remedy for diphtheria. This is to be inferred when he tells us to bear in mind that the disease is self-limited, "and after a somewhat uncertain duration will end favorably, unless, in the mean time, death may result from some accidental interference with a vital process, as with that of respiration in the croupal cases, or from the prostration resulting either from exhaustion or from the asthenic character of the affection." While he does not underrate the importance of attention to the general supporting plan of treatment, he is inclined to look upon this local affection as of much greater importance. The local application which the author evidently favors, is a solution of the sulphate of zinc, fifteen to twenty grains to the ounce. For the hot and dry skin he recommends the effervescing draught of citrate of potash, and when the symptoms of debility are well marked alcoholic stimulants with quinine take the precedence.

The croupal cases he rightly considers the most dangerous, but his recommendation of the use of calomel will hardly receive general endorsement. His advice to perform tracheotomy in these cases, in the hope of much better success than in membranous croup, is eminently sound.

The so-called spotted fever comes in for its due share of consideration, and the chapter which treats of it, although proportionately shorter than many of the others, forms one of the most interesting in the work. The writer believes it to be as much a disease *sui generis* as any other fever known to be such, and looks upon the occurrence of cerebro-spinal meningitis only as a comparatively frequent complication. He prefers the name Petechial Fever, as the one most convenient and appropriate, "as no other fever is so peculiarly marked with true petechiæ as this, and there is no other phenomenon more constantly present which can serve as a basis for nomenclature." The term is certainly preferable to many others now in vogue, as being more explanatory of the nature of the malady, and must commend itself at least for the present to pretty general adoption. The history of the affection is very fully given, and is evidently the result of an extensive study of all the monographs that have been so numerously published since the attention of medical men was more particularly directed to it. In his treatment he follows out, in the first place, the supporting plan; and in the second place seeks to obviate the action of the poison on the brain by opiates, judiciously administered. As a tonic he favors the sulphate of quinine administered in from two to four grains every hour or two, according to the urgency of the symptoms, or until the head is obviously affected, after which the doses may be diminished. The opiate is administered every four, six, or eight hours, according to the urgency of the symptoms. A blister to the back of the neck is wisely recommended as a valuable auxiliary.

The substitution of the name Heat-Fever for the well understood one of Sun-Stroke, is, we think, hardly admissible. It is true that "Sun-Stroke" does not express all we could wish to convey by the use of the term, but we believe that the general phenomena of the disease are well enough understood by the profession to render any change at this time unnecessary. But this is by the way. There is nothing inviting special comment in the account of this disease, except that which refers to its therapeutus. The treatment advocated by the late Dr. B. Darrach, Resident Physician to the New York Hospital, receives, we are glad to learn, the endorsement of our author, who founds its applicability on the necessity "of removing the cause of the disease by diminishing the temperature of the body to the normal point,"

The portion of the work treating of Camp Diarrhœa is mainly an embodiment of the views of Dr. Woodward, who is the first and only one who has given a reliable history of this interesting disease. Concerning Locomotor Ataxy, the same thing has virtually been done with the views of Duchenne, who is justly honored as its discoverer. Although he has not given us much of anything that is original in reference to these two subjects, he has done the best he could for his readers by quoting the best authorities.

We would be glad to allude specially to many other interesting points brought out in the work, prominent among which would be many singular affections, but as a simple reference to these would not be sufficient for a proper appreciation of them, we are compelled to simply commend them to the reader's own perusal. Laryngoscopy and Rhinoscopy are fully treated, and their application justly appreciated, while the interesting subject of inhalation of vapors in the treatment of respiratory affections is prominently set forth. We are, however, somewhat surprised, in view of the author's appreciation of all the recent means at our command for the investigation of disease, that the merits of thermometry are not alluded to.

In conclusion, we have a remark to make concerning the style in which the work is published. The binding, which is in sheep, as all text books should be, is handsome, indeed unexceptionable, but the paper used is of very inferior quality, and the typographical execution is, in consequence, much below par. If the publishers could afford to do no better we would pity them, but as it is we have nothing to say for them in extenuation.

PRACTICAL THERAPEUTICS, CONSIDERED CHIEFLY WITH REFERENCE TO ARTICLES OF THE MATERIA MEDICA. By EDWARD JOHN WARING, F.R.C.S., F.L.S., Surgeon in her Majesty's Indian Army. From the second London Edition. Philadelphia: Lindsay & Blakiston, 1866. Pp. 815.

THE plan of this work is an admirable one, and one well calculated to meet the wants of the busy practitioner. There is a remarkable amount of information, accompanied with judicious comments, imparted in a concise yet agreeable style. The indications for the applications of remedies are sufficiently comprehensive, and their mode of action generally accounted for on rational grounds. The publishers have well performed their part, and we trust that their enterprise in introducing the work to the profession in America may meet with that encouragement which the inherent merits of the treatise itself are entitled to command.

FATAL RESULT FROM THE EXTERNAL USE OF TOBACCO.—A child was poisoned to death in Paris by the application to its head of tobacco juice mixed with lard.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, OCTOBER 24, 1866.

DR. FRANK H. HAMILTON, PRESIDENT, in the Chair.

CASES OF MYELITIS.

DR. VOSS exhibited the lower part of the right femur of a boy, which had been removed by amputation, that day, by Dr. Raphael, at the Jews' Hospital. The patient had, about two months ago, received a blow or injury on the lower part of his femur. Soon after, an abscess formed, occupying the anterior and lower end of the bone. This abscess was evacuated by a very small opening, but the boy soon after began to suffer so severely from hectic fever, that the operation of removal of his limb was necessitated to save his life. The femur, after its removal, was sawn through longitudinally, and exhibited a beautiful sequestrum involving nearly the whole of the shaft. At the line of amputation, there was still at the upper end a small spot of necrotic bone visible. This was easily removed by the forceps of the operator.

He also presented a second specimen, which was the femur of the left side of a young man, 26 years of age, who had always been healthy, and who, having no hereditary taint, could give no assignable cause for his trouble. Dr. Voss saw him on the 29th of August, when the patient had been under treatment for about three days. He had then complained of a sudden pain in the lower part of his femur. This pain had commenced with rigor, which was followed subsequently by fever and great debility; while the lower part of his thigh was swollen and fluctuated. Two days after his first visit, and in consultation with another surgeon, he made an incision on the outer as well as inner aspect of the lower third of the limb. The whole shaft was then found denuded. The incision was followed by the escape of a large quantity of putrid matter, and was attended with a temporary abatement of the fever. Four days after the opening of the abscess, his symptoms commenced to grow worse again, and on the 2d of September there was no doubt but that the joint had become involved. Amputation was, consequently, demanded and performed. The patient did well for a few days after the operation, when he was seized with rigors again, and sank with subsequent diarrhœa and exhaustion on the 22d, twenty days after the amputation. The examination of the femur, after its removal, showed it to be a case of osteomyelitis. When the amputation was performed, the lower epiphysis of the femur was movable, and was separated by granulations and pus from the shaft. The articular surface of the joint was entirely denuded of its cartilage; and the osseous tissue was visible, and, as usual, was very thickly overlaid by thick, luxuriant granulation.

On making the post-mortem examination, afterwards, it was found that the pathological process was not only confined to the lower part of the femur, but that the inflammation of the bone extended as high up as the hip joint. This was a point of interest in connexion with the assertion that had been made by an authority that in osteo-myelitis the inflammation invariably extends as far as the proximal joint of the bone affected.

DR. HAMILTON remarked that cloacæ were always formed in one of two ways: either by death of the periosteum at a given point, and the consequent non-formation of involucrum; or, by the actual absorption of bone, and the subsequent ulceration of the periosteum.

Dr. Voss's specimen illustrated the previous condition of things.

FALLOPIAN PREGNANCY; NEW PROCEDURE FOR ARREST OF HÆMORRHAGE.

Dr. Rogers presented a specimen of Fallopian pregnancy, causing death by internal hæmorrhage; and gave an elaborate statement of the circumstances which attend such an accident, advocating, as a measure for treatment, the abdominal section, and subsequent ligation of the wounded vessel.

Dr. Buck did not think that such an operation would be advisable, inasmuch as in those cases the patient was already too much prostrated by the shock of hæmorrhage.

Dr. Peaslee did not think the escape of blood per vaginam, referred to in these cases by Dr. R., was as significant as they were claimed to be; but the other attendant phenomena would be sufficient to make a diagnosis. As far as the operation was concerned, he did not think that any one should hesitate to perform it if the patient was not, at the time, dying of hemorrhage. The amount of blood lost was not, after all, of such moment as the presence of the clot (produced by even a moderate flow) in the cavity of the peritoneum. If the operation were to be performed, it would not then be for the arrest of the hæmorrhage, except as occasioned by the actual removal of the clot. This would be the main difficulty, the ligation of such vessels as would be left open; but even this, he thought, should not deter any operator from attempting to meet the indications of such cases, which otherwise would be sure to terminate fatally.

ANEURISM OF AORTA; EFFUSION OF BLOOD IN PLEURAL CAVITY.

Dr. Buck presented the heart and large arteries attached, which had been removed from a patient 68 years of age. The aorta was found extensively diseased. In the first place it was dilated to more than double its normal dimensions; its internal surface being uneven, puckered, and extensively deteriorated by atheromatous degeneration. At about an inch beyond the giving off of the left subclavian, and corresponding to the commencement of the descending portion, there was a remarkable contraction, with rounded form and defined edge, capable only of admitting the extremity of the little finger. This was evidently an old lesion. Immediately above and below this constriction, the dilated condition of the artery already referred to, commenced. The semilunar valves were stretched, but were normal. The exterior of the heart was surrounded with a large deposit of fat. At about the junction of the middle and lower portion of the thoracic aorta, a rent was discovered in the midst of extensively degenerated tissue, through which the hemorrhage causing death took place.

The patient was in affluent circumstances, and his habits and mode of life were of a very orderly, quiet sort. He was of a cheerful, buoyant disposition, and had rarely been a subject for medical advice. On the forenoon of the day he died, he made an appointment with Dr. B. to have a tumor of his scalp removed. The next that was heard from the patient, was a summons from his family, about 6 o'clock. On arriving at the house immediately afterwards, the Doctor found him already dead. The patient had taken his usual drive in the afternoon, and had returned home, taken his seat at the dinner-table, carved a fowl, suddenly complained of difficulty of breathing, and died in a very few minutes thereafter.

The wife stated that he would often, in walking back and forth in his yard, complain of want of breath; and the late Dr. Cheesman, who had been his physician, had evidently, in the advice given to him in reference to exercise, understood that there was some trouble about the heart. His wife remarked, too, that at night she sometimes could hear his heart beating when his head was pillowed.

The cavity of the thorax was alone examined. The left lung was found extensively adherent by old adhesions. The right cavity of the pleura contained at least two or three pints of coagulated and fluid blood. The tissues constituting the posterior mediastinum were found infiltrated with blood, and it was evident that the blood, after its escape from the artery, found its way into this situation, and afterwards ruptured into the pleural cavity.

ABSORPTION OF THE FŒTUS.

Dr. Reynolds exhibited a membraneous envelope, the size of a turkey's egg, which was discharged per vaginam by a woman supposed to be two months advanced in pregnancy. The point of interest in the specimen was the presence of everything in the mass to make it an undoubted product of conception, except the fœtus. The membranes were perfect in every seeming respect, but the contents of the sac were discolored and gelatinous.

Dr. Post remarked that he had met with just such a case. He had opened the membranous sac, but no fœtus was found in its interior.

Dr. Markoe had had a similar experience, and referred to a case in point which occurred to him during last summer. The ovum was about six weeks old, and after having been discharged was carefully examined microscopically, and everything but the fœtus was found to make it complete. He supposed that in such cases the fœtus died very early and was absorbed.

Dr. Gouley concurred in this opinion. He had dissected such specimens a number of times and failed to find the ova. He related in this connexion an instance of early arrest of development in the fœtus by the accidental twisting of the cord, the membranes continuing to grow afterwards until such time as the mass was discharged. He thought that the turbidity of the fluid in the sac was an indication of the absorption of the fœtus.

Dr. Peaslee had seen half-a-dozen cases in which the fœtus was absent, but had never met an instance of an ovum which, under such circumstances, had reached a development beyond eight or nine weeks. He did not think it possible for the membranes to be retained longer in a viable condition in the uterine cavity, as at that time the extensive connexions of the chorion were withdrawn, for the purpose of forming the placenta, and the membranes were in proportion deprived of that nourishment which they had before received.

Dr. Hamilton exhibited the upper end of a resected femur, which contained in the head of the bone a true sequestrum. The history of the case has already been furnished to our readers. (*Vide* page 441.)

The Society then adjourned.

N. Y. Pathological Society.—The following officers have been elected for the ensuing year:—Dr. H. B. Sands, President; Drs. Loomis and Noyes, Vice-Presidents; Dr. Geo. F. Shrady, Secretary; and Dr. W. B. Bibbins, Treasurer.

Pilulæ Metallorum et Amarum.—Dr. Humphrey Peake, of Visalia, Cal., formerly of Yazoo City, Miss. (*Detroit Review of Medicine and Pharmacy*), extols the subjoined formula as an excellent hæmatic (or blood-maker) and remedy for the *malarial cachexia*:—℞. Quiniæ bisulphatis, ʒj.; ferri redacti, ʒjss.; strychniæ, acidi arseniosi, āā. grs. iij.; confectionis rosarum, vel mucilaginis acaciæ, q. s. ut ft. pil. lx.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Jan. 16, 1867.

Dr. James Anderson, President, in the Chair.

A NEW METHOD OF TREATING DOUBLE TALIPES VARUS.

Dr. Quinby, of Jersey City, N. J., introduced a girl aged about two years, whom he had treated for a talipes varus of a most aggravated form. The treatment, which had been commenced two weeks ago, consisted in drawing the foot into proper position by means of adhesive straps, and entirely dispensed with the division of the tendo Achillis. The portion of the skin to which he had elected to apply the straps was previously hardened by an aqueous solution of alum, to which a small portion of alcohol had been added. This lotion was used for a period of about two weeks, with the desired result.

Dr. Q. substantially claimed among the advantages of this method of treatment:

1. The foot affected was capable of being restored to all its functions, provided the treatment was begun in from the third to the sixth week from birth.

2. The time required for restoration was much shorter than that demanded by the cumbersome shoe usually employed.

3. There was no irritation, and less suffering.

4. The method did not require the skill of the expert, and was therefore capable of being adopted by every medical man.

5. No retardation of development resulted, as, for example, a certain weakness of the ankle-joint.

He then exhibited upon a small model the mode of applying the straps. The process essentially consisted in adjusting to the plantar surface of the foot a portion of adhesive plaster, cut to fit, and afterwards warmed. Another portion cut to the outline of the leg and side of the foot, *i. e. stocking-shaped*, was next applied in a manner to exert its tractive force to the best advantage. An ordinary roller bandage secured the whole.

Dr. Post's application of the principle differed from his own, and in his opinion was an improvement, so far as simplicity and amount of tractive power were concerned. This gentleman used only two pieces.

Dr. Post was led to apply the principle in the case of an infant aged three or four months, in whom a division of the tendo Achillis was followed by erysipelas and a sloughing of the integument. He applied the straps in lieu of the shoe, and found that it very well answered the purpose.

RETIREMENT OF THE PRESIDENT.

Dr. James Anderson, in formally resigning the Presidency of the Academy, a position filled by him for the past six years, expressed his thanks to the Fellows for the courtesies uniformly tendered him, and recounted some of the incidents connected with the organization of the Academy, which were for the most part derived from the recollections of living witnesses alone. He warmly advocated the project of a building to be owned by the Academy, in which the various Medical Associations of the city might meet, and which would combine all the features of anatomical museum, library, reading, and conversational rooms. He then introduced his successor in office,

Dr. Post, who complimented the Academy for its many contributions of valuable papers, as well as interesting debates, which cover a period of twenty years. Since the date of its organization (Jan. 7, 1847), the science of medicine had made most marked progress, as proven by the introduction of more exact means of diagnosis, *e.g.* the ophthalmoscope, the laryngoscope, the endoscope, etc. He also congratulated the Academy upon its brilliant array of names, representing nearly every department of medical science, and hoped for a continuance of its zealous labors.

Dr. Underhill moved a vote of thanks to the retiring President for the able, efficient, and courteous manner in which he had discharged the duties of his office. Unanimously adopted.

The inaugural address of Dr. Post was, on motion, ordered to be printed.

The Academy then adjourned.

NEW YORK MEDICAL JOURNAL ASSOCIATION.

Stated Reunion, January 11, 1867, Dr. Gurdon Buck in the Chair.

PRESENT POSITION OF AURAL SURGERY.

Dr. Roosa remarked, that the present method of examining the membrana tympani was a most decided improvement upon the somewhat familiar routine of the old practitioners. This revolution began with Prof. Troltsch's suggestion of the concave mirror, of six-inch focus and having a small central aperture for the convenience of the observer. Prof. T. combined with this the tubular speculum. There were those who even believed that the simple mirror would supersede Desormeaux's endoscope.

Another grand advance had been made in our appreciation of the real objects of interest, which present themselves for inspection. Formerly only the handle of the malleus and the periphery of the drum challenged attention. Now the triangular light spot, which effect, as first shown by Politzer, is due to the traction of the handle of the malleus upon the drum in an inward direction, was taking its proper rank in professional estimation. For the benefit of those who had given but little attention to aural science, he would pass around the illustrations of Dr. Politzer's work, for here this spot was prominently brought forward in the different phases of health and disease. He would also accompany those plates with certain photographic illustrations, obtained from Munich, in which the ossicula auditus and other parts of the ear were very well represented. The last number of Guy's Hospital Reports, as may be seen by a reference to the shelves of the Association, likewise exhibits perforation of the drum, although he objected to the term *normal* drum, as applied to one taken from the dead subject.

Then, again, the eustachian catheter, notwithstanding the assertion that Mr. Turnbull, in London, had killed two patients by its use, was steadily growing in the confidence of surgeons. Apropos of the danger to be encountered, he would answer with the experience of Continental and American surgeons, by whom this most excellent means of diagnosis was highly lauded. The only objection of value, and this a probable accident merely, was a rupture of the mucous membrane, which might produce an emphysema transient in character. Nothing alarming, so far, had occurred in his hands to induce him to abandon the instrument, unless a case of fainting might be regarded as an exception. Certain it is that the catheterism of the eustachian tube is an operation frequently performed in the Eye and Ear Infirmary, and in private practice, without any feeling of dread. The value of the procedure is demonstrable in chronic catarrhal inflammation of the middle ear (the chronic myringitis of Sir William Wilde),

but is not applicable to the treatment of a very rare affection, to wit, the stricture of the tube.

Bougies, for the strictures above alluded to, were now likewise beneficially used. In this mode of treatment, Dr. Francis Simrock, of this city, had a large experience.

With regard to Politzer's method of inflation too much cannot be said. The late Mr. Toynbee proved that the Eustachian tube was closed except during the action of certain muscles concerned in deglutition; Politzer practicalized the discovery by requiring the patient to swallow, while the surgeon forced air through a tube, placed in one nostril while the other was closed. In this way, the rush of air through a ruptured membrane was readily appreciated, and at once became a valuable diagnostic sign. If during the experiment the membrana tympani chanced to be ruptured, there need be no apprehensions, since the wound thus caused very readily healed. Dr. R. spoke warmly of this method in those subacute cases, of which the following was a type, and which he would relate as exhibiting its success: A boy, of scrofulous constitution, exposed to the action of cold, "gets," in common parlance, "his ears stopped up." This deafness promising to be permanent, he is treated according to the best intelligence of the period, by cauterization of the throat and removal of the tonsils, but without benefit. His physician, as soon as Politzer's method was promulgated, sent for the boy, applied the principle, and was rewarded by the fact that the patient heard an ordinary conversation in five minutes. This patient was again attacked a number of months after, and again in like manner relieved.

Politzer's method, however, was not valuable in chronic peripheral thickening, as shown by change in form of the light spot, etc. Its good effect was chiefly manifest in the removal of mucous accumulations which might take on structural changes. In perforations, Politzer's apparatus had been made available in thoroughly cleansing the canal established as a result of inflammation. This was accomplished by filling the affected ear with warm water, afterwards stuffing the meatus with raw cotton. The tube, cavity of tympanum, and external meatus, were thus thoroughly washed out.

The nebulizer was now used in the therapeutics of aural diseases. Dr. Bishop's apparatus for nebulizing the mouth of the eustachian tube very often sends fluid instead of spray, but this freak sometimes being of advantage could hardly be urged as an objection. For the injection of iodine he had found Buttles's inhaler a very useful addition to Politzer's apparatus. Dr. R. alluded to and exhibited a few other appliances, upon the claims of which he descanted at some length.

Artificial membranæ tympani were now found more generally applicable than before supposed. Mr. Toynbee's disc of rubber, being liable to separate from its attachment and act as a foreign body in the ear, has been modified by a German, who has ended off the little wire with a spiral arrangement. The disc is secured by one or two of these closely fitting coils, in the same manner that a cork is by the cork-screw. In one case in Dr. R.'s experience the hearing distance was prolonged, during the use of these discs, from one or two inches to two feet, which was certainly a very comfortable gain to the patient.

Then, again, the otoscope, for listening to the passing of air into the middle ear, is a refinement in our means of diagnosis unknown to our predecessors. We have now also better defined ideas regarding the after-growths in the ear. What Mr. Toynbee was pleased to call exostoses of arthritic or syphilitic origin, are now accepted as being due to a primary periostitis. We expect, therefore, to prevent their formation. As an earnest, indeed, of the benefits to be derived from the future cultivation of this inviting field of inquiry, it is observed that aural polypi, which are now regarded as exuberant granulations merely, are much less frequently met with than they were ten years ago.

The change in nomenclature points out our more exact knowledge of aural diseases, since such terms as otorrhœa, myringitis, etc., which only mislead the student, are falling into disuse. We now know that the ceruminous secretions and the inflammation of the middle ear are independent of each other.

The *literature* of the subject is now no longer meagre; publications of high authority are readily attainable in London, Paris, Vienna, Munich, and New York. In addition to these facilities, we have a German quarterly devoted to the consideration of the topic. In fact, careful, earnest students are pursuing the branch with enthusiasm, and have already been rewarded by the most brilliant returns. For the matter of that, statistics show that, exclusive of the chronic cases inherited by us from a previous generation, we are not more unsuccessful in our therapeutics here than in other parts of the body.

Dr. R., in the course of his remarks, gave some very interesting statistics, collected by himself and Dr. G. M. Beard in the asylums of New York and Hartford, the object of which was to fix the relation sustained by the pharyngeal mucous membrane towards the membrana tympani in the causation of congenital deafmutism. These, he promised, should be published in due time. He also maintained that the difficulties attendant upon the study of the disease were not as great as generally supposed—they need not interfere with the duties of the most active practice.

Dr. Elsberg called attention to the omission on the part of Dr. Roosa to mention the importance of inspecting the post-pharyngeal space. This element in diagnosis, in the course of Dr. R.'s extemporaneous remarks, had, no doubt, temporarily escaped the memory of the speaker.

Dr. Roosa acknowledged his indebtedness to the gentleman, and made a few remarks upon rhinoscopy.

The Association then adjourned.

EAST RIVER MEDICAL ASSOCIATION.

Stated Meeting, Dec. 4, 1866.

Dr. Verranus Morse, President, in the Chair.

THE ALKALINE SULPHITES.

Dr. Weisse related a case of chronic ulceration of the leg, in which the bisulphite of soda, in strength of ℥ ss. of the salt to ℥ j. of water, gave the most satisfactory results. He kept it applied to the ulcer by means of a cloth wet with the solution. In the case of those abscesses which result from the degeneration of the lymphatics, and which give us no little trouble, he had also employed it. He had likewise resorted to it for the purpose of inducing a more healthy action between the cut surfaces of a paronychia, and was rewarded with a cure in less than a week. He was now testing it in constitutional syphilis.

Dr. Thoms, induced by the weight of testimony in its favor, had pretty severely tried the bi-sulphite of soda as a local application in his dispensary practice, and had come to the conclusion that it was not an overrated remedy. Before this, the bi-carbonate of soda had been a favorite with him, owing to its power to saponify the secretions of ulcers.

Dr. Abbott had not been as fortunate in his trials of the agent, notwithstanding its diligent and persistent application. He confessed that so far the changes for

the better, as far at least as his experience was concerned, were not very well marked.

Dr. Burke thought the salt had very little influence in those classes of zymotic disease which are generally regarded as self-limited. He warned against the faith apt to be reposed in fashionable remedies. He had employed the agent in question in scarlatina and erysipelas, and so far was not disposed to rank it beyond a mere placebo. He thought that the ordinary spirits of mindererus was equally efficacious. He would inquire whether scarlatina had been absolutely cut short by this salt?

Dr. Weisse referred to an article bearing upon this subject, in the *Dublin Quarterly Review*, by Dr. Cummings, who seemed to be an accurate observer, in which the affirmative to Dr. Burke's question was held.

Dr. M. L. Smith could testify to its efficacy as a prophylactic in scarlatina.

Dr. Stein was satisfied that he had in both scarlet and typhoid fever reclaimed several days from those diseases.

The Association then adjourned.

Correspondence.

MEDICAL MATTERS IN PHILADELPHIA.

Philadelphia, January 3d, 1867.

To the Editor of the Medical Record.

Sir—In my last letter I communicated a formula for the use of the bromide of potassium in the treatment of epilepsy, which had been reported upon favorably by several of our physicians. I have since learned that the formula mentioned emanated from Dr. Brown-Séquard, of your city, and I take the first opportunity to give the credit where it is due. This often becomes difficult, for whatever is new and valuable in medicine becomes so soon part of the common property of the profession, that every one looks upon it as his own, without knowing, and too often without caring for the source of his indebtedness.

At a recent meeting of the Northern Medical Association of Philadelphia, Dr. Bryan related a case of delirium tremens which had recently been under his care, and which he had successfully treated with the internal administration of chloroform. He administered a teaspoonful of the chloroform in ice-water every two hours. He saw the patient at one o'clock on a Sunday. The symptoms of the affection were marked; wandering, with the idea of strange and horrid animals upon the chairs of the room, etc. On Monday morning he found his patient asleep, and was informed that he had slept well for two or three hours. Between the hours of one on Sunday and eleven on Monday, the patient had taken an ounce and a half of the chloroform. On Tuesday he was entirely free from everything like delirium, but very much depressed mentally in consequence of his condition. On Thursday he had returned to his employment.

Dr. Maybury mentioned a severe case of mania-à-potu recently under his treatment, a first attack in a young gentleman who had been rather dissipated for some time, and was attacked while drinking. He purged the patient with the compound cathartic pill, and then ordered tincture of lupuline with morphia and valerian, which did not control the attack. He then resorted to a combination of tincture of hops with brandy and asafœtida, in doses alternating with the other medicine, and with a successful result.

Dr. Gebhard mentioned a case successfully controlled in twenty-four hours by two half-ounce doses of the tincture of digitalis, given at intervals of two hours, and stated that he had been uniformly successful with this remedy.

Dr. Bryan replied that in a previous attack he had given the same patient digitalis in tincture to the amount of an ounce in the space of four hours, but without beneficial result, and that he had been compelled to resort to other measures. In the present attack, therefore, he had felt justified in at least testing the effects of the internal administration of chloroform, as he had seen some favorable reports, and that as far as the present case taught him, he felt inclined to resort to the remedy again, and hoped that the members would give it a trial and report the results.

Dr. Gebhard thought the want of success with the digitalis might be due to the difficulty of procuring a good article; that much of the tincture sold in the shops was made from inferior specimens, and care therefore should always be taken to direct patients where to procure such a preparation as could be relied on. Some years ago he called the attention of his fellow members to the use of digitalis, and narrated his extensive experience with it in scarlatina, where he was in the habit of giving the powder in grain doses every hour.

Yesterday Prof. Jos. Pancoast assumed charge of the surgical clinics of the Jefferson Medical College. During the service of Prof. Gross from the commencement of the present session, there have been presented to the class, as subjects for clinical instruction, over one hundred and forty cases, as follows: club-foot, tenotomy, 4, lithotomy 3, syphilis 17, condylomata of tongue 1, scrofulous abscesses 3, Pott's disease of the spine 3, lateral curvature of the spine 2, paraplegia 1, necrosis 7, rheumatism 1, encephaloid tumor 1, scirrhus of the mammary gland 6, fistula in the anus 2, fatty tumor 1, obstruction of nasal duct 2, fibroid tumor 2, anchylosis 2, cataract 10, sebaceous tumors 3, vascular tumors 2, scirrhus (epithelioma) of the lip 5, onychia maligna 12, stricture of urethra 2, hare-lip 4, elephantiasis of the knee 1, enlarged lymphatics of the neck 1, dislocation of patella 1, thyroid dislocation of femur 1, dislocation of humerus 2, erythema 1, ulceration of the mouth 1, abscess of the thigh 1, chronic enlargement of the tonsils 3, fracture of the clavicle 1, gunshot wounds 2, extirpation of the testicle 1, ophthalmia 1, trilobed ear 1, amputation of the fingers 1, enlargement of the spleen 2, cleft palate 1, paralysis of lower extremities and bladder 1, strabismus 7, removal of cicatrix from painful stump 1, torticollis 1, plastic operation for the formation of the lower lip 2, synovitis of the shoulder joint 1, traumatic orchitis 1, enlarged prostate 2, phymosis 1, inverted toe nail 1, ranula 1, besides 1 tumor on the neck, 1 tumor on the internal condyle of the humerus, 1 tumor on the ala nasi, and 1 excrescence on the face, of which the exact nature was doubtful. In connexion with these cases over ninety operations were performed before the class.

Prof. Pancoast initiated his term of service by the extirpation of the parotid gland, making an S-formed integumentary incision and removing the tumor after preliminary dissection and ligation of the exterior carotid and other arteries, by twisting it round and round on its attachments; and the dilatation of a stricture of the œsophagus, the result of drinking, in mistake for lager beer, some lye intended to be used in the manufacture of soap.

The following record, from the *Philadelphia Inquirer* of the 2d inst., will give your readers an idea of the health of our city during the past year, the population of which is usually estimated at from 750,000 to 800,000.

The following statistics, compiled from the weekly reports made by the Board of Health, show the mortality

of the city from the 1st of January, 1866, to December 26th, as compared with the deaths of 1865:

	Total in 1866.	Total in 1865.
January	1,111	1,373
February	1,415	1,550
March	1,082	1,868
April	1,034	1,411
May	1,304	1,227
June	1,168	1,690
July	2,047	1,838
August	2,401	1,759
September	1,362	1,040
October	1,828	1,084
November	1,037	1,285
December	982	1,044
	16,803	17,169

The interments of those brought from the country during the present year (644), and still-born (803), should be properly deducted, which would leave the actual mortality of this city 15,356. When we consider the fact that our city was visited during the past summer with the cholera, and that about 900 persons died from that disease, we have great cause for congratulation. The table is made up to the close of the year, while the one of 1866 closes on Saturday, leaving the mortality of three days to be added. If we estimate the deaths for that time to be 100, we still find the mortality of 1866 to be 266 less than in 1865, when the deaths were but one in every 47 of the population.

The following shows the sexes and nativities of those interred:

	Males.	Females.	U. States.	Foreign.
January	574	537	816	244
February	775	672	1,074	287
March	578	504	834	190
April	517	517	777	204
May	679	625	960	263
June	606	502	874	230
July	1,086	951	1,550	382
August	234	1,167	1,799	443
September	716	646	1,005	303
October	1,022	866	1,291	466
November	550	467	754	226
December	524	458	739	203
	8,861	7,942	12,473	3,411

The number of deaths from consumption of lungs largely predominates over those from any other disease. During the year 1831 persons died from this disease, being 95 less than in 1865. Of the whole number 7398, or nearly one-half of the whole number of deaths, were but five years of age and under, and 714 were eighty years and over.

I will take the opportunity of mentioning a successful application of local anæsthesia after the method of Richardson, the first of the individual kind which I have had the opportunity of observing. A man called in my office on the 17th of December, suffering terribly from tic douloureux. Here presented himself as having been suffering constantly for four weeks with loss of sleep, inability to attend to business, &c.; that various methods of relief had been applied without success, and that he had been sent to me by a professional friend. The pain extended over the cheek, ala nasi, and lower eyelid, and neither blistering nor internal medication had afforded any relief. I propelled some ether spray over the painful parts, and in half a minute the pain was gone entirely. After the patient had remained half an hour without any recurrence of the pain, I bound up the part with his handkerchief, and prescribed half a grain of sulphate of morphia, to be taken as soon as he reached home, when he was to jump into bed at once. The next day but one, after an interval of forty-eight hours, he returned, reporting that he had slept well, ate a hearty breakfast, but that the second evening some twingeing had returned over the zygomatic process of the molar bone, which was still present. I applied the spray again and repeated the prescription. I saw no more of the patient until the 2d of January, when he presented himself to make his acknowledgments, and reported that he had remained entirely free from pain since the second application of the spray. I feel disposed to attribute the good result to the ether spray, for anodynes had failed previously; and if the morphia was a prominent agent, the way for its success was prepared by the local applications, which would even then be entitled to the main credit.

Yours truly,

C. J.

THE INCREASE IN THE LECTURE FEES.

LETTER FROM PROF. GROSS.

PHILADELPHIA, January 5th, 1867.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—In a late number of your journal it is stated by your Philadelphia correspondent that the diminution of the classes in the University of Pennsylvania, and in the Jefferson Medical College of this city, is due, in great measure, to the increase in the price of tickets adopted here, at New York, and at Boston. This decline, shared by all the schools in these three cities, is, I think, justly ascribable to very different causes. I do not myself believe that the raising of the fees has prevented the attendance of a single student. I have taken some pains to inquire into this matter, without having heard of a solitary objection. Indeed, there is every reason to believe that the measure is an entire success. This is certainly the opinion here, and, I think, also in New York, if not in Boston.

The causes which, in my judgment, lie at the foundation of this decline, and which every sensible man must regard as of a very temporary nature, are: first, the reopening of the medical schools in the Southern States; secondly, the great scarcity of money in that vast region of the country; thirdly, the diminished demand for army and naval surgeons; and, lastly, the existence of cholera during the autumn in at least two of the cities above mentioned. Although this disease did not, at any one time, prevail as an epidemic, the reports concerning it were much exaggerated; and, no doubt, induced many students, who would otherwise have attended the lectures in the schools that raised their fees, to seek other institutions.

The Michigan University, at Ann Arbor, is said to have a very large class. It had a very large one last winter, before the Philadelphia, New York, and Boston colleges increased the price of their tickets. It is generally supposed that at least one reason of the very flourishing condition of the Michigan school is, that it is a free institution; and yet a member of its Faculty, only a short time ago, published a statement in one of the medical journals of the country, that the aggregate expenses of a course of lectures there quite equalled those in any of the metropolitan colleges. This fact, then, is either not generally known, or, if known, it shows that Ann Arbor must possess extraordinary attractions for medical students.

I have seen no reliable information concerning the condition of the Southern schools; but I have heard from several, and in those the classes are not large. A letter received from a highly respectable physician of

Cincinnati, dated December 22d, has the following statement: "The medical colleges here have small classes; the Ohio about 150, and the Miami over 100. The classes are also small at St. Louis and Chicago. . . . The cholera appearing in a severe form, for a second time, just as the schools opened, frightened away many students. Some died of the disease in this city." The number of students in the University of Louisville (now the only medical institution in that city) is small.

I have considered it my duty to write this letter, briefly setting forth what I believe to be the only true causes of the diminution of the classes in the schools that adopted an increase in the price of tickets last summer. The change was, in my opinion, eminently wise and proper; and I trust that it may soon become general throughout the country.

I have the honor to be, very respectfully, your friend and obedient servant,

S. D. Gross.

New Instruments.

IMPROVED PORTE-CERATE FOR THE UTERUS AND URETHRA.

By F. D. LENTE, M.D.,

of cold spring.

In the October, 1866, number of the Record, I described a *porte-cerate* of convenient construction for the introduction of medicated ointments into the uterus. It has been found objectionable, however, by some of my medical friends, and by myself in one particular; that is, when it is necessary to vary the ointment frequently, on account of the difficulty in emptying the tube and syringe, and refilling them. To meet this objection as far as possible, I propose the instrument manufactured by Mr. Tiemann, and here accurately figured.

It consists of the hard rubber syringe, *a*, *open* at the bottom, and of a cap, *b*, fitting the latter accurately, and secured by a bayonet catch; connected with this, by a screw attachment, is a tube of pure silver, with a calibre corresponding with a No. 2 catheter, and constructed precisely like it, except that the eyes are nearer the extremity, and with the addition of an olive-shaped enlargement an inch and a half from its extremity. This tube may be easily unscrewed and replaced by a similar one several inches longer, represented in the engraving, also of pure silver, when it is designed to introduce an ointment into the male urethra or any deep sinus.

To charge the syringe, remove the cap, plunge the open end to the bottom of the vessel containing the ointment (warmed a little, if necessary), and draw the piston slowly up; care should be taken that no air enters. Fit the cap and secure it well, and press the ointment into the tube until it fills the eyes. If it is intended to make only one application before changing the composition of the cerate, it will, of course, be only necessary to draw up a very small quantity.

Before applying the instrument, which should always be done through a proper speculum, it is better to pass a sound, with a bulb a trifle larger than the tube, through the cervical canal, in order to get the exact curve and direction of the latter, and to ascertain whether the os internum is sufficiently open to admit it; the tube may then be bent to correspond with the curve of the sound. If the ointment, in cold weather, has become hardened in the instrument, so that it cannot be forced out, it is well to put it in warm water or hold it near a fire for a short time, but not so long as to render the ointment too fluid, as it should always pass out in a solid vermicular form. The enlargement on the tube indicates to the eye when the extremity has entered the os internum, and we may thus be sure that the application has reached the cavity of the uterus, and not merely that of the cervix. But it is always preferable to pass the end fully up to the fundus, and to move it gently from side to side while pressing out the ointment. There is a mark on the rim, *c*, of the syringe, corresponding with the concavity of the curve of the tube, so as to render certain the position of its point after introduction. The substitution of eyes on the sides of the tube for the opening at the end in most other instruments, precludes the danger of forcing the ointment into a dilated Fallopian tube, or of closing the aperture by forcing it against the fundus uteri. The quantity of the ointment introduced is measured exactly by the number of divisions on the piston-rod through which the latter is pushed; a matter of very considerable importance.

When it is necessary to change the application, the ointment should be forced out, and then a stream of warm water or olive oil forced through the tube to empty and clean it.

The composition of the ointment used as a vehicle for different drugs, will vary somewhat with the season; a medium temperature will require of simple cerate four parts, olive oil three parts. In very hot weather, the proportion of cerate will be larger, and in very cold weather, that of oil. The medication will, of course, vary with the ideas or experience of the practitioner. Calomel, in the proportion of two or three drachms to an ounce, is very mild and effectual in many cases of chronic internal metritis, and in chronic urethritis in the male. The powdered persulphate of iron (Squibb's) in the proportion of thirty or forty grains to the ounce, is also mild and effectual for the uterus. I have tried it but once for the urethra. Iodine, half a drachm to a drachm, and nitrate of silver half a drachm, gradually increased, if necessary, may also be used for the uterus; also tannin, chromic acid, sulphate of zinc, tannate of zinc; combined, if necessary, with belladonna or morphine. Some of these drugs are occasionally absorbed and produce constitutional effects, but only of a very transient and unimportant character; iodine and nitrate of silver will frequently be tasted by the patient immediately after their application.

Chronic affections of the male urethra, especially gonorrhœa, have always been found most tedious and annoying both to patient and surgeon, especially among a certain class of patients. This fact has led Mr. Thompson, of London, to propose recently as a substitute for the injections of various kinds, which are almost always ineffectual with patients who are obliged to be about their business, medicated bougies, which are of sufficient consistence to allow of their introduction by the patient, and which gradually melt in the urethra. But

their length, on account of their composition, can only be a very few inches, and cannot reach the entire extent of the disease, and would therefore only be applicable to a limited number of cases. If this mode of application should prove to be as useful as its proposer hopes it will, the porte-cerate above described will be found a far more effectual and convenient mode of application for the surgeon, or even the patient, if it is necessary or advisable to furnish him with it. The long tube is to be passed down as far as the prostatic portion, and as it is gradually withdrawn, the piston is to be *very* gradually forced down, so as to distribute the application evenly from one end to the other. In case of disease, as granulation, or ulceration affecting only certain points of the canal, the ointment may be extruded only when the end of the tube reaches such points. In case of spermatorrhœa, instead of the solid nitrate of silver applied by means of Lallemand's instrument, I think it will be found that a strong ointment of the agent will be less painful and just as effectual, and certainly much easier of application.

In diseases of the rectum, as ulceration situated high up, and in applying opiate suppositories in infants, in whom an ordinary suppository cannot generally be retained, the instrument may be used to advantage. Also as a suppository syringe for the vagina by removing the cap.

New Publications.

BOOKS AND PAMPHLETS RECEIVED.

BUREAU OF REFUGEES AND FREEDMEN: Report of the Assistant-Commissioner for Alabama, 1866.

INFANTILE PARALYSIS AND ITS ATTENDANT DEFORMITIES. By C. F. TAYLOR, M.D., Resident Surgeon, N. Y. Orthopædic Surgery, etc., etc.

Medical News and Items.

PERSONAL.

DR. JOHN H. GRISCOM has been elected President of the Association for the Advancement of Science and Art.

PROFESSOR SIGMUND, of Vienna, Teacher in Venereal Diseases, the originator of the inunction method of treatment, has been made a member of the Hungarian nobility by the Emperor of Austria, "on account of his distinguished services as a teacher and physician."

IN 1841, DR. IGNAZ FRITZ, of Prague, left half his property to secure a fund for the payment of some physician who should give himself up to assisting in the care of the patients in any general hospital in any one of the chief cities of the Austrian empire, not receiving any pay for his services for one year. The amount given is 280 Austrian florins, about $140.

PROFESSOR GRAEFE, of Berlin, has had assigned to him an eye clinic in the Charity Hospital of that city. His famous one near the hospital continues in full operation.

Surgeon C. T. Alexander, United States Army, is relieved as post surgeon at Fort Snelling, and assigned to duty as post surgeon at Fort Riley, Minn.

Assistant Surgeon W. D. Wolverton, United States Army, is relieved from duty in the Department of the Potomac, and assigned to the Department of the Gulf.

DR. DAVID SMITH, formerly a Member of the Allegheny Medical Society, Member of the Medical Society of the County of New York, and Fellow of the New York Academy of Medicine, died at his residence in this city, January 16, in the 57th year of his age.

BREVET MAJOR T. S. MACKENZIE, Assistant-Surgeon U. S. A., died at Washington City, D. C., on January 1st ult., of congestion of the lungs.

DR. HOWARD TOWNSEND, Professor of Physiology in the Albany Medical College, we regret to learn, died at Albany, N. Y., about the opening of the present year.

A VETERAN MEDICAL SOCIETY.—The sixty-second anniversary of the founding of the Georgia Medical Society was celebrated on the 2d January ult.

CONSUMPTION OF ALCOHOL IN THE UNITED STATES.—According to the revenue returns, $500,000,000 worth of liquors are consumed in the United States annually. The government tax on this is over $47,000,000.

TWELFTH ANNIVERSARY OF THE WOMEN'S HOSPITAL ASSOCIATION.—The twelfth anniversary of the Women's Hospital Association was celebrated January 12th ult., at No. 54 East Fifty-fourth street. The treasurer's report showed the receipts for the year to be $7,408, and the expenditures $7,360. The secretary's report promised the completion of the building next Spring. According to the Surgeon's report, since the foundation of the institution 1,219 cases have left the hospital cured, and there were only eleven deaths in the same time. Last year 847 outdoor cases were treated, and 101 cases were admitted, 75 of which were discharged cured, and there were no deaths. The reports were all adopted.

Addresses were delivered by Dr. Doremus and others.

POTENT DISINFECTANT.—The *Dublin Med. Press* states that Dr. DeWar, of Kircaldy, has discovered that "for the disinfection of inanimate material, the addition of a little nitre to sulphur, and the combination of these fumes with the steam of boiling water, improvises a disinfectant at once the most powerful, most searching, and most efficacious which can be obtained, utterly destructive at once of any latent contagion, and of every form of insect life."

PORTABILITY AND COMMUNICABILITY OF CHOLERA.—Dr. William Marsden of Quebec, C. E., has issued the following circular:

To the Members of the Medical Profession on this Continent.

GENTLEMEN,—Having been unanimously elected delegate, for the third time, to the annual session of the American Medical Association, to be held in Cincinnati, Ohio, on the first Tuesday of May next, by the College of Physicians and Surgeons of Lower Canada, I beg to announce my intention to present a paper to the Association "*On the Infectious Character of Asiatic Cholera, its Portability and Communicability.*" With a desire to render it as full and complete as possible, I shall feel obliged to such members of the profession as may be pleased to furnish me with any facts sustaining these views, that may have come within their knowledge or under their observation, during the recent or any former visitation of the pestilence on this continent. Address, until the first of April next, W. MARSDEN, M.D., *Quebec, Canada East.*

CHOLERA ON THE ISTHMUS.—There has been a sudden outbreak of cholera among the soldiers and passengers on the Isthmus near Nicaragua.

Northern Dispensary.—The fortieth annual meeting of this charity took place Jan. 11th ult., at the dispensary, corner of Waverley place and Christopher street. The report for 1866 was read, showing that the affairs of the institution are in a prosperous condition. The total number of patients under treatment, 20,301; of these 3,824 were out patients, the balance attended at the dispensary; 7,640 males, 12,661 females. Of these 19,881 were cured or relieved, 277 sent to hospital, 23 discharged as improper subjects, and 86 died. At the end of the year 1866 there were 34 remaining under medical treatment. Whole number of prescriptions filled and served, 37,014. The financials tatement presented by the Treasurer, George S. Wetmore, showed a balance on hand of $193 53. Receipts, $4,962 44; expenditures, $4,766 91.

A Model of the Lincoln Hospital for the Paris Exposition.—Surgeon-General Barnes intends sending to the Paris Exposition a model of the Lincoln Hospital, Washington, constructed on a scale of one inch to thirty feet. The original design for this hospital, which was considered one of the best in the country, was made by Surgeon J. J. Woodward, United States Army, under the direction of the Surgeon-General.

The Number of Lunatic and Idiotic Paupers in England and Wales.—The *Lancet* states there are 39,827 lunatic paupers in England and Wales: 29,617 being classed as lunatics, 10,210 as idiots.

According to another account all the lunatic asylums in England, both public and private, are full.

Vermont Asylum for the Insane.—According to the thirtieth annual report of this Institution, three thousand nine hundred and eighty-five patients have been admitted since its opening, three thousand four hundred and ninety-two have been discharged, and four hundred and ninety-three now remain. Of those discharged, seventeen hundred and ninety have recovered.

Six hundred and forty-one have enjoyed the benefits of this institution the past year. There were four hundred and eighty at the commencement of the year, one hundred and sixty-one have been admitted, one hundred and forty-eight have been discharged, and four hundred and ninety-three now remain. Of those discharged fifty-eight have recovered.

The income of the past year has been $76,289 19, and the expenditures have been $76,904 17; leaving a balance of $614 98 against the institution, which will be increased by the loss from bad debts.

The medical officers are, W. H. Rockwell, M.D., Supt. and Physician; W, H. Rockwell, Jr., M.D., E. B. Nims, M.D., Ass't Physicians.

New York State Inebriate Asylum.—At a trustees' meeting of this institution at Binghamton, N. Y. on the 9th ult., all the differences, which at one time apparently threatened its permanence, were amicably adjusted. Dr. J. Edward Turner has resigned his position as Trustee and Corresponding Secretary, and retires from the establishment. At a special meeting of the Board of Excise for this city and vicinity, held during the past month, the following was adopted:

"*Resolved*, That the Treasurer be authorized to pay over to the Treasurer of the New York State Asylum for Inebriates ten per cent. of the excise money received during the year 1866, on the order of said Treasurer, countersigned by the President of the Asylum."

The Great Charity Ball for 1867, for the benefit of the Nursery and Child's Hospital, will take place on the 4th March at the Academy of Music, and will be the second ball in the new Academy building.

The New Quarantine Station.—The work on the new Quarantine Station on West Bank was commenced on Monday, January 14, by the laying of the most important part of the foundation in the shape of a crate made of wood, thirty feet wide at bottom and twenty feet at top, and filled with stones until it sank to the bottom. It faces towards Sandy Hook, Coney Island, and the Upper Bay, and is formed with a sharp point to cut floating ice, with two faces eighty feet each in length and two sides about one hundred and sixty in length, forming altogether an acute-angled parallelogram, wanting one end and open in the centre.

The works promise to be a great success, and there is nothing that can disappoint the expectation that they will be prosecuted with vigor, and finished in a very short time. It is also announced that the proposition by the owners to sell David's Island to the government for hospital and barrack purposes, has been referred to the Quartermaster-General for investigation.

N. Y. Academy of Medicine; Officers Elect.—At a late meeting of the Academy, the following officers were declared elected: President, Alfred C. Post; Vice-President, Dr. Isaac E. Taylor; Trustee, Dr. Wm. B. Bibbins; Committee on Admissions, Dr. G. M. Smith (long term), Dr. Ellsworth Eliot (short term); Committee on Medical Ethics, Dr. Gurdon Buck; Committee on Medical Education, Dr. Frank H. Hamilton (long term), and Dr. E. R. Peaslee (short term.)

Blue Glasses.—The *British Med. Journal*, referring to the large number in Berlin who wear blue glasses, says: "The neutral tint or smoke glass is seldom seen. The sunlight, throughout the year, is more glaring abroad than we have it here. Moreover, there is at Berlin, besides Von Gräfe, an authority perhaps greater than he is in this particular, favoring the resort to blue glasses—Professor Böhm, who has made the effects of blue light his special study, and to whom ophthalmology is certainly indebted for valuable information on this head. Whoever has cared to inquire into, and in suitable cases try, the effect of blue glasses, will not, on account of a possible excess due to fashion, too unfavorably judge the ascendency obtained by this therapeutical agent."

Theses.—What will Europe say, it is suggested, at this horrible vandal innovation of abolishing Theses? More than a quarter of a century ago we wrote an article exposing the folly of Medical Theses. Last year the South Carolina Medical College threw this European folly overboard, caring, we presume, very little at that particular time what Europe would think. Many of her sons were dead. Time was precious with those left alive, and the College wisely resolved that it was wrong to take a moment for any foolish routine purpose whatever from those who flocked to it. For the same reason our College did the same thing. Should time ever again become of no value as it was with our European semi-barbarian ancestors, and as Dr. Livingstone says it now is with the natives of Africa, and we should be alive, why, we will advocate a return to theses. Even in Goldsmith's time he found theses on the continent of value to him. He got pay for disputing with the authors of theses, and was thus said to have disputed his way through Europe. But now, when a Dean slips a thesis, put up with ribbons and with printed title-page, in a "pigeon hole," to sleep its long sleep, knowing it cost its author so much precious time, he is obliged to feel, if not void of sensibility, that he and his colleagues are, to that extent, time-robbers. The reason for theses no longer exists—the substance is gone; let the shadow go with it.—*Nashville Journal of Medicine and Surgery.*

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

SIXTY-FIRST ANNUAL MEETING, HELD AT ALBANY, FEB. 5, 1867.

FIRST DAY.—MORNING SESSION.

THE Society met in the Common Council Chamber, City Hall, at 11 o'clock.

After prayer by the Rev. Dr. Darling, the President, DR. JOS. C. HUTCHISON, read his inaugural address, in which he feelingly alluded to the death of Drs. Mussey and Tripler, honorary members, and Drs. Green and Townsend, permanent members of the Society. He remarked, that the Medical Schools of the State were generally conducted on a prosperous basis; and he was pleased at the prominence given to Hospital Clinical Instruction as evidenced by the union of medical schools with hospitals, although he would warn against the exaltation of clinical at the expense of didactic teaching. He claimed that New York was fast becoming a great medical centre, and that instruction in some specialties was made as readily available as in any European city. He called attention to the fact, however, that some schools had granted diplomas to students in the offices of irregular practitioners, upon the plea that they could not go behind what the law had seen fit to recognise. He held that a school was simply *empowered*, not obliged, to confer degrees, and that a faculty *may*, not must, recommend a candidate. Dr. H. also directed the attention of the meeting to the medical journals, three in number, which were published in the State, and were all conducted with marked ability. These serials needed literary support, and in his opinion country practitioners should write more, since it was conceded that comparative solitude or isolation was not incompatible with the most philosophical contributions to medical literature.

The revision and codification of the by-laws, scattered as they were through the Transactions, and not readily accessible, were most urgently demanded.

An act virtually empowering the Society to regulate the conditions of membership, and to exercise proper discipline in needed cases, etc., had been passed by the Legislature; but in a spirit of mistaken justice the same privileges had likewise been extended to the irregular organizations.

The Metropolitan Health Bill had become a law since the last session, on which occasion it would be remembered the influence of the Society had been signally brought to bear in its favor, and was already enjoying the confidence of the community. It is hoped that increased powers will bring corresponding returns.

DR. MARCH moved that a copy of the above be requested for publication. Carried.

The President then appointed the following standing committees:

On credentials: Drs. A. Thompson, John V. Lansing, and W. H. Bailey.

On reception: Drs. Alden March, Thos. C. Brinsmade, and W. B. Bibbins.

On business: Drs. E. R. Squibb, S. O. Vanderpoel, and H. C. Gray.

DR. C. M. CRANDALL offered the following:

Resolved,—That the President appoint a Committee of three to extend an invitation to such members of the Legislature as belong to the medical profession, to attend the meetings of this Society during its session. Carried.

The President announced as such Committee—Drs. Crandall, Vanderpoel, and J. H. Armsby.

DR. BRINSMADE offered a resolution to the effect—That a Committee examine the suggestions contained in the President's inaugural, and report what action may be expedient.

Drs. Brinsmade, Fred. Hyde, and W. M. Chamberlain, were appointed said Committee.

DR. MARCH then introduced Drs. H. R. Storer, of Boston, and Thos. A. Foster, of Portland, Me., both of whom gracefully acknowledged the compliment of an invitation to a seat in the body.

DR. CRANDALL, from Committee to invite the professional members of Legislature to the deliberations of the Society, reported the performance of their duty, and they were thereupon discharged.

DR. POTTER, of Montgomery, by permission of the Society, exhibited in the person of a deformed man aged forty, a remarkable and rapidly increasing crop of condylomata, principally upon the back. These parasitical growths, in conjunction with two small tumors, apparently fatty in character, gave the patient no particular annoyance, and were not at all painful.

DR. SQUIBB announced as in his possession, communications from the Montgomery and Oneida County Medical Societies, which were on motion referred to the Committee of which he was Chairman. He then read a resolution previously adopted, defining the duties of said Committee.

DR. MARCH, Chairman of the Committee to whom was referred the subject of providing suitable accommodations for holding the meetings of this Society, begged leave to report: That they have considered the subject in the spirit of the design of the mover of the resolution providing for the Committee, and as a result, have procured the Common Council Chamber, the spacious and elegant hall in which they were now assembled, and as a suitable acknowledgment of the favor conferred would offer the following:

Resolved,—That this Society tender its cordial thanks to his Honor, Mayor Thacher, and the Common Council of this City, for their prompt and generous act in aid of the cause of Medical Science, and that the Secretary transmit a copy of this resolution to his Honor the Mayor.

This report was likewise signed by Drs. J. V. P. Quackenbush and W. H. Bailey.

The report of the Treasurer, showing a balance of $382.35 to the credit of the Society, was received and referred to an Auditing Committee, consisting of Drs. E. H. Parker, Cook, of Canandaigua, and B. P. Staats.

DR. G. T. ELLIOT read a paper upon "Still Births," in which, after alluding to the death of the Princess Charlotte, of England, in child-bed, and the suicide of her attendant, Sir Richard Croft, he discussed the subject at length, maintaining that there was hope for the child as long as there was the slightest pulsation of the heart. He showed that autopsies often brought comfort to the practitioner, in relieving his mind of the weight of responsibility resting upon his conscience. These *post-mortem* investigations showed, among other causes of death, fatty degeneration of the arterial coats, congestion of the brain, cerebral extravasation, diaphragmatic hernia, endocarditis, hydronephrosis, etc. The field of inquiry was exceedingly interesting.

DR. SQUIBB moved the acceptance of the paper and its reference to the Committee on Publication. Carried.

DR. STORER admired the masterly treatment of the subject, and alluded to the feelings of doubt spoken of by Dr. Elliott which seemed to find so much comfort in that trusting to nature. Dr. Cotter's essay, "Dis-

ease, a part of the plan of Creation," was an exponent of this school.

He thought that practitioners gave over their efforts too soon—long before the proper expedients were exhausted. Craniotomy might be less frequently resorted to, as he was sure anæsthetics were too little used. Version and the long forceps were not as often used as demanded.

Dr. March read a paper entitled a "New Method employed for removing Urinary Calculus from the Urethra." He quoted Velpeau's directions that a dressing forceps, somewhat concave and flattened, be made to glide beneath the calculus, or that a noose of wire engage it; or, in the event of failure, that a small scoop, shaped like a hook, might answer the purpose; and, finally, that the lower wall of the urethra in front of the stone be incised. He objected to the dressing forceps, since, unless the calculus is more than an inch back of the *fossa navicularis*, the blades cannot be opened, but had succeeded with the sheathed forceps, a model of which he exhibited. The difficulties of the noosing process would be readily appreciated by those who had resorted to it, in attempts to extract a cork from a bottle. Urethrotomy again might produce a fistula, and at any rate would retard the cure: it should only be attempted when other means had failed.

His experience in the management of these cases was chiefly confined to small boys. With a bullet forceps that had never succeeded in his hands as far as extracting bullets was concerned, he had removed the obstruction. He forced the tube which contained the instrument well up to the calculus, and prevented the escape of the calculus by placing his finger so as to close the urethra behind. He then urged the stone forward, and when it was fully secured by the apparatus concealed in the tube, he withdrew it with the obstacle. The expedient was a simple one, and capable of being applied by any one.

Dr. Hiram Corliss said that Sir Astley Cooper more than thirty years ago had removed calculi from the urethra by a forceps, which he remembered to have seen represented in the *American Chirurgical Review*, and from which he had an instrument made in Albany, for trial in a case of his own. He had been in the habit of alleviating the agonies of his patient by forcing the calculus back into the bladder, whenever it became engaged in the urethral canal; but the old condition of things would return, and compelled him to devise other methods for a cure. Dr. Alexander H. Stevens, of New York, to whom he had written on the subject, advised against the use of the instrument, since in the hands of nearly every one, except Sir Astley Cooper, it had failed to effect its purpose. It occurred to him, however, that he might be aided in his efforts by the bladder's forcing, through the medium of the urine, the obstruction into the very jaws of the instrument. He accordingly availed himself of an opportunity to test his idea when the bladder was full, and was rewarded by being designated by Dr. Stevens as the first successful manipulator of the instrument in America.

In certain cases he had opened the urethra, introduced the catheter, and allowed it to remain in position without any ill effects; in fact, he considered the resort to such means better than too much manipulation.

Dr. Squibb read by title, the following papers, which were received and referred to the Committee on Publication:

"Empyema," by Dr. John Root, of Batavia. (Transmitted.)

"Observations on the Continued Fever of N. Y. City," by Dr. Henry M. Field. Read before the Medical Society of N. Y., Sept. 3, 1866. Recommended by the Censors to the State Medical Society of the State of New York for publication in the Transactions. Recommendation adopted by the Society, Jan. 7, 1867.

"Obituary Notice of Dr. James Lee, of Mechanicsville, Saratoga County," by Dr. H. C. Cooper.

"Cerebro-Spinal Meningitis," by Dr. Alonzo Churchill, of Utica. Presented by the Oneida County Medical Society for publication in the Transactions by resolution of the Society.

"Biographical Sketch of Dr. Wm. T. Carter," by Dr. J. W. Moore.

"Obituary Notice of Dr. Laurens Hull," by Dr. C. M. Crandall.

"Ligature of the Primitive Carotid Artery," by Dr. J. H. Armsby.

Dr. March gave notice that a social reunion would be held at the Supervisors' rooms, at 9 o'clock P. M., at which the medical profession of Albany expected to entertain their brethren of the Society. The meeting then adjourned to meet at 3 P. M.

Afternoon Session.

The Society met after recess, at the hour appointed, when after approval of the minutes the President announced the following Nominating Committee for the districts as below designated:—

First, Dr. Samuel T. Hubbard; Second, Dr. E. H. Parker; Third, Dr. J. V. P. Quackenbush; Fourth, Dr. A. F. Doolittle; Fifth, Dr. D. P. Bissell; Sixth, Dr. Crandall; Seventh, Dr. Caleb Green; Eighth, Dr. H. W. Deane.

Dr. Manlius Smith was requested to transmit to the Society an obituary of Dr. Taylor, an Ex-President of the Society.

Dr. O. White, as Censor of the Second District, reported that J. J. O'Dea, of the McGill University, Montreal, after passing a very satisfactory examination, had been recommended for a license.

Dr. Bailey stated that the credentials had been received, but had been followed by no application for a diploma. Report, on motion, put on file.

Dr. Frederic Hyde read a paper upon the "Complication of Hernia," which was received and referred to the Publication Committee.

Dr. W. G. Wheeler, delegate from the Massachusetts Medical Society, after an introduction by Dr. March, complimented the Society for its zeal, and closed with an eloquent tribute to the memory of Dr. A. A. Gould.

Dr. N. Sanford, from the Connecticut State Society, likewise presented the greetings of his Association, and would be pleased to deliver to Yale College, as requested by it, a set of the Transactions for deposit in its library.

Dr. Collins, of Berkshire, Massachusetts, a member by invitation, also made a few pertinent remarks regarding the medical organizations in his State.

Dr. G. V. P. Quackenbush read a paper on "The Spontaneous Evolution of the Fœtus—its philosophy and treatment," in which, notwithstanding the views of Drs. Hodge, Bedford, and the profession in general, he maintained the phenomenon did occur. As a remedy for certain mal-positions of the fœtus, he advocated in those cases where the vulva was dilated, aiding nature, and did not hesitate, despite the doctrines on this subject, to draw on the protruding arm, in a direction down and up underneath the *os pubis*. He exhibited a number of diagrams in corroboration of his judgment upon the subject.

Dr. G. T. Elliot recalled five cases of spontaneous evolution occurring under his observation in the Dublin Lying-in Hospital, Bellevue Hospital, and the New York Lying-in Asylum. Dr. Douglas, of Dublin, first explained this mechanism correctly, and trials were then

made to see whether these cross-births might not better be left to nature more frequently. But experience soon demonstrated that these cases of spontaneous evolution were exceptions, and not reliable as a law. In some cases delay has occurred until the abdominal walls have ruptured, and the intestines escaped, when delivery has been easy. Spontaneous evolution is possible when the three conditions of large pelvis, small child, and powerful uterine efforts, are combined.

Dr. Charles B. Coventry suggested that when the waters were drained off and craniotomy was deemed advisable, the thorax or abdomen might be perforated and the fingers used as a fulcrum.

Dr. Quackenbush, in reply to a question, thought that no one, after so much of the body of the child was doubled up in the pelvis and impacted there, would hazard the mother's life for the bare possibility of saving her offspring.

Dr. Corliss, even when the arm was protruding from the vulva, had urged its possessor up, and recollected neither a rupture of the uterus nor the death of the mother.

Dr. Currie had put the arm back three or four times and delivered by the feet.

Dr. Quackenbush did not in his cases refer to simple arm presentations with the body well in the uterus, but to those where the child occupied the whole pelvis.

Dr. Storer commented strongly upon hasty, as well as meddlesome midwifery. He regarded a mutilated child a disgrace to the obstetrician, and recited an instance where a court of justice compelled the maintenance of such a child by the officiating physician. The risk to the mother depended largely upon the length of time of pressure. Craniotomy and evisceration were to be the last resorts, and when determined upon should not be performed except during anæsthesia, by that eminently obstetrical agent—chloroform. Anæsthesia was a very important element. Dr. Quackenbush's paper was then on motion received and referred to the Publication Committee.

Dr. Storer, by invitation, read a paper upon "Chronic Metritis," in which he lauded the value of blood-letting from the uterine cavity itself, and exhibited an instrument for scarifying the fundus uteri, which consisted essentially of a hollow sound, from which several blades with their sharpened edges turned from each other at right angles were caused to emerge at a given moment. This instrument was easily kept clean and was not too flexible.

He got the hint of direct depletion from the relief afforded by the loss of blood during menstruation, and enlarged upon the idea by applying this expedient during the menstrual interval. By this means he had produced effects in a few weeks, which before required more than the corresponding number of months. His custom was to make several linear incisions, turning the cutting points in different directions. He did not mean to rely on this mode alone; the alternate application of heat and cold, irritation by sinapisms applied to the mammæ, atropia, bromide of potassium, hypodermic injections, all claim a share of our attention.

The paper was received, and referred to the proper committee.

Dr. Storer, in reply to Dr. Corliss's question, did regard depletion a remedy for chronic inflammation.

Dr. March renewed the invitation to the social meeting at 9 P. M., and read a circular from a committee of the American Medical Association, regarding the "Transactions" of that body, stating particulars regarding the price of each volume, etc.

The annual address of Dr. Levi Moore on "Physical and Mental Hygiene," delivered before the Albany County Medical Society, was referred to the appropriate committee.

The meeting then adjourned to 7.30 P. M.

Evening Session.

The meeting convened pursuant to adjournment, and after approval of the minutes, the report of the Reception Committee was received.

Prof. O. W. Morris, of the New York Deaf and Dumb Asylum, by invitation and previous appointment, read a paper upon "Consanguineous Marriages." He averred that this subject had not heretofore excited much interest, owing to a supposition that the deleterious causes were limited in operation. He quoted largely from statistics in proof of his position, that married relatives produced offspring feeble in intellect, deaf, deaf and dumb, afflicted with defective vision, and that among all these, deaf mutism held the most prominent place. The tables of Dr. Bemis, of Kentucky, who had paid much attention to this subject, and those of Dr. How, in his report to the Massachusetts Legislature, were also quoted. An authority had also stated that five per cent. of idiots were the offspring of married kinsfolk. Not only anomalies of organization, but peculiar deformities, such as six toes on each foot, disappeared from families when a more enlarged commercial intercourse removed the pretext for union of the sexes among relations.

There is every reason to believe that organic vitiation culminating in hydrocephalus, a hereditary tendency to inflammation of the brain and the meninges, and perhaps epilepsy and scrofula, are among the results of the causes forming the subject of the paper.

He claimed that the whole matter demanded the attention of legislators as well as sanitarians.

Dr. Hough, of the State Census office, read a memorandum in confirmation of Prof. Morris's figures.

A delegate objected to the request that Prof. Morris furnish a copy of his paper for publication, on the ground that the latter was no member.

Dr. Bibbins advocated making relationship in the case of marriages as distant as possible, and deemed it the duty of all to uphold immigration, and so encourage alliances between the sexes of different nationalities. He reminded gentlemen that they carry their logic a little too far, even to a *reductio ad absurdum*, by quoting the fact that the whole race sprang from a single pair, and was afterwards continued by a single family.

Dr. Newman denied the statement of the paper regarding the prevalence of idiocy in certain cantons of Switzerland. The Canton Berne, in particular, was proverbial for the beauty and sprightliness of its inhabitants. Idiocy and cretinism were limited to other cantons, among which he would instance that of Valois. The statistics of the paper, he maintained, were fallacious in that the comparison of figures was unjust. Investigation should begin among the unfortunates as a class, and not be limited to the unfortunates springing from consanguineous unions. The argument on the other side was equally strong, and the experience of some cattle-breeders, who resort to the "in-and-in" method, as confidently adduced in reply. In the circle of his own acquaintance, in the case of the children of two brothers, the offspring of married cousins, he can detect no peculiar defect of either body or mind. He desired that the whole subject be investigated thoroughly, and without prejudice, by a committee of this Society, whose duty should be to report at the next session.

After a few remarks by Drs. Staats, Porter, Bibbins, and Corliss, the meeting adjourned to ten o'clock on Wednesday morning.

In the course of the entertainment by the profession in Albany, which was held according to appointment, speeches were made by Mr. Bogert, of the *World*, Drs. Elliot, Wheeler, W. Parker, Quackenbush, Rev. Drs. Elmendorf and Clark, of Albany, Drs. Corliss, Storer, and Currie.

SECOND DAY—MORNING SESSION.—FEBRUARY 6, 1867.

The Society re-convened at 10 A. M. Prayer by Rev. Mr. Abbott, of the Ash Grove Church. The minutes of the previous session were read and approved.

DR. E. H. PARKER, from the Committee on Prize Essays, reported that no essay in competition had been presented for the Merritt H. Cash Prize, but that three essays had been offered for the Brinsmade Prize. The Committee recommended that this latter prize be awarded to the essay marked "Albany," the accompanying envelope of which was opened on motion of Dr. Squibb, and found to inclose the name of Dr. Franklin B. Hough, of Lowville, Lewis county, N. Y.

DR. SQUIBB, on behalf of the "Committee on Pharmacology," reported on the subject of the Indigenous Materia Medica, and asked attention to a thorough and proper investigation. The subjects now under consideration were "Gelseminium," "Podophyllyn," "Conium with regard to the part to be employed, together with a comparison of its properties with those of Opium," and "Daturia."

The report of the Committee on Pharmacology was, on motion, laid upon the table.

The invitation of Mr. McClure, of Albany, to receive his hospitalities, was accepted.

DR. VANDERPOEL offered a resolution that a Committee of three, of which Dr. Hun should be Chairman, be appointed to prepare a memoir of the late Dr. Howard Townsend. The Committee, as appointed, consisted of Drs. Hun, Mosier, and Vanderpoel.

DR. O. WHITE offered a resolution to the effect that the by-laws be collected and published in proper form.

On motion of Dr. Squibb, the whole matter was referred to the Committee having in charge the recommendations of the President as contained in his inaugural.

DR. NEWMAN offered the following:

Resolved, That a Committee of Three be appointed to investigate the result of consanguineous marriages, and facts relating thereto, and to report at the next meeting of the State Medical Society; and further, that other State Medical Societies be invited to co-operate with this body in the investigation of aforesaid subject. Committee appointed were as follows: Drs. E. Harris, R. Newman, and J. Towler.

DR. GARRISH offered a resolution proposing to increase the number of permanent members to six in each Senatorial District, which was, by decision of the President, declared out of order, since the whole matter was regulated by statutory enactment.

DR. GARRISH then substituted a resolution asking the Legislature to take proper steps to secure that end. After an animated debate, in which Drs. White, Staats, Govan, Pomeroy, Garrish, Hoff, and E. H. Parker participated, the whole subject was, on motion, indefinitely postponed.

DR. MARCH introduced Dr. Voorhies, of Montgomery county.

DR. BRINSMADE, from Committee on Suggestions in President's Inaugural Address, recommended that in the issue of College circulars, it be distinctly stated that certificates of study from irregular practitioners will be disallowed, and that they will confer no degree upon any one avowing his intentions to practise medicine in accordance with any exclusive system. The suggestion that the medical journals be sustained, the Committee hoped would meet with proper consideration.

The suggestion regarding the course to be adopted by the Colleges, was presented as a resolution and carried.

The same Committee again presented Dr. White's resolution, which was adopted in the following form:

Resolved, That the Committee on Publication be instructed to supervise the printing of a new edition of the Laws and By-laws of this Society, in order that among other things we may have the law passed by the Legislature last year, giving the County Medical Societies the power to fix and determine the conditions of membership in their several bodies; and the resolutions instituting the Business Committee, and the rules governing its action, embodied with the other laws and by-laws, and laid upon our table at the next meeting of the Society, together with any other rules or regulations that may have been adopted since the last edition of the Laws and By-laws was printed in 1857. Adopted.

DR. BRINSMADE offered the following:

Resolved, That the Nominating Committee be requested to nominate five members as delegates to represent this Society in the International Medical Congress at Paris, which is proposed in connexion with the Exposition of 1867, and that the Secretary be authorized to appoint alternates in case the original appointees cannot attend. Adopted.

DR. GARRISH offered a new remedy for "Amenorrhœa," "Rhyncosa excavata," or Tesa, or Tesin. This had proved effectual when the usual remedies had failed.

DR. SMITH objected to the proposition to refer the subject to the Committee on Pharmacology, as they had not yet disposed of their old business. The motion to refer to Committee on Pharmacology was lost. The motion to lay on the table was likewise lost, after which the whole matter was referred back to Dr. Garrish for further investigation.

DR. GARRISH also presented different forms of the "Calabar bean" as adapted for use by practitioners.

DR. MANLIUS SMITH read a paper upon "An attempt to answer the question which part of the plant of Conium Maculatum is the best for medicinal use?"

The conclusions arrived at from careful experiments are: 1st. That the partly, or fully grown, but wholly *green* seeds (popularly so called) are from three to seven times more active than the leaves collected at the time of flowering; and that the leaves collected at that time are about twice as active as those collected later. 2d. That the fruits, properly collected and dried, retain their activity quite perfectly, and that probably for a considerable length of time. 3d. That the "third extract of Conium seed," an unofficinal preparation made by Dr. E. R. Squibb, produces well marked operative effects in doses of about fifteen minims. Probably a considerably less quantity will answer for many medicinal uses.

DR. SQUIBB then moved the acceptance of the Report on Pharmacology as a whole, and its reference to the Committee on Publication.

DR. GRAY remarked that he had tested the effects of Conium, but was induced to drop its use in consequence of the unreliability of its preparation. Dr. Squibb then suggested to him the use of the fluid extract and experimentation with the seed. He regarded the preparation from the latter as far superior to the leaf, being three times stronger.

DR. J. C. SMITH called attention to the use of Gelseminium in epilepsy, and asked for the experience of the members. He had used a saturated tincture with benefit, in the case of a patient afflicted with violent convulsions, chiefly at night. He had also mild spasms

in the course of the day, which were completely controlled by the article; and while under its influence also he was troubled with no nocturnal convulsions.

Dr. Manlius Smith had used Gelseminium in the case of a lady troubled with spasms, with good effect. She had, however, cancer of the uterus, of which she died. The drug may have come in as a modifying influence.

In two other cases, the paroxysms seem to have been aggravated.

Dr. J. V. Cobb, of Rome, had resorted to its use in puerperal convulsions, and hæmorrhage from the lungs.

The dry preparation of Tilden he preferred to any tincture known to the profession. He had been much satisfied with the effect produced.

Dr. J. C. Smith was unable to state the dose employed by him, since he had constantly and gradually increased the quantity up to a certain point, which he could not now state.

Dr. H. D. Noyes read a paper entitled "The Application of the Ophthalmoscope in discovering Diseases of the Brain," which he accompanied with diagrams for the inspection of the Society. He deemed the ophthalmoscope worthy of general use by the profession in cases of obscure cerebral disease, and that no hospital, in particular, should be without it. Received, and referred to Committee on Publication.

Dr. Garrish warned against too great a reliance upon the use of the ophthalmoscope in the detection of cerebral disease. Amaurotic symptoms, upon which a diagnosis of cerebral disease was based, according to Dr. Watson, were in no case found to have depended in reality upon a plug in a defective tooth.

He regarded the ophthalmoscope as invaluable in the detection of fatty degeneration and secondary syphilis, but we must not depend upon the instrument alone, unassociated with other aids.

Dr. Squibb urged brevity in discussion, since the business before the Society was urgent and the time limited.

Dr. Green, of the Pennsylvania State Medical Society, after an introduction by Dr. Marsh, remarked that the State Society of New York was a model association, and announced that the next meeting of the Society represented by himself would be held at Pittsburgh, to which he cordially invited the delegates from N. Y.

Dr. Towler, of Geneva Medical College, read a paper upon the "New Interpretation of the Physiology of the Retina of the Eye," in which, after an allusion to the absolute perfection of the eye as an optical instrument, he stated that two methods of adaptation suggest themselves; either by a variation of the distance between the refracting surface and the screen on which the image is formed, in such a manner that the latter shall always be in the focus of the converging rays; or the distance of the screen being the same, the convexity of the lens may be varied so as to adapt it to the distance of the object. These opinions, as expressed by Carpenter, are shared in by all opticians and physiologists, but for them he proposed to substitute views of his own. His first endeavor to produce by an optical instrument a miniature picture of an object perfect in the relations of size, etc., led to the discovery that every corrected lens produced this result, and that the picture was therefore *solid*. His next step was to ascertain whether the eye comprehended a perfect picture in or on the retina at one or the same moment of time, and his conclusion was to the same effect, that the picture thus formed must be *solid*. No change of curvature in the lens, nor any other combination of devices, can produce on the retinal surfaces a picture endowed with the relative size and distance of the reality such as is perceived by the eye. The action of the ciliary muscle and processes or muscles of the eyeball, cannot determine the possibility that the lens might change its form under given circumstances, or act in part for special purposes.

The function of the objective of an astronomical telescope was the production of a solid picture, a perfect fac-simile of the real object occupying space but inverted. Remove the eye-piece, and this solid picture would still be produced with its relative proportions fixed, but as a whole neither in the same position nor of the same size. This phantom can be photographed by means of a lens, at any angle to the axis of the telescope.

The function of the eye-piece is to magnify the phantom to any required dimensions. This took place in the hollow space of the tube, and by it the object was brought home to us.

The phantom picture occupying space, a screen placed transversely to the direction of the rays producing it, would sharply define only those parts of the image that fall upon the screen, while the other parts would be indistinct in consequence of coming to a focus either before or behind the screen. So, too, the same want of sharpness would pervail also on the retina of the eye, if the retina were a surface.

He maintained that the retina was a transparent medium of sensitive nerve fibres, in which solid phantom pictures are formed by the lenses in front of the eye-ball. This medium, which corresponded to the open space in the telescope or microscope, contained a great number of fibrillæ, which transmitted the picture to the sensorium. If then it be conceded that the retina is a substance of given thickness, the problem of the adaptation of the eye to comprehend at one and the same time the picture of objects at different distances is solved. The eye may receive impressions, and not be cognizant of them, as when the mind is interrupted by a train of thought; but call the mind back, the image will again be well defined.

Dr. T. then proved trigonometrically that the retina had a certain thickness, which in his own person amounted to one-fiftieth of an inch.

According to Kölliker, Siebold, Möller, and others, the retina is formed of a columnar, a granular, and a nervous layer, intimately connected with one another.

He concluded, therefore

(1.) The lens required no *focussing*, by virtue of its situation to the retina. (2.) The combination of the crystalline lens, the aqueous humor, and the meniscus-shaped cornea, being corrected for both spherical and chromatic aberration, produced a miniature solid phantom independently of volition. (3.) This picture existing in the midst of the transparent nervous expansion of the retina, required only a focussing of the attention to a given part, to effect a transmittal of said part to the sensorium. (4.) Myopia and presbyopia result from defective position of the retina, or from its inadequate thickness.

Paper received, and referred to Publication Committee.

Dr. Shumway, in reply to an unanswered question propounded by himself, stated that the probable reason why we recognised images upon the retina as being erect when they were actually inverted, was due to a habit of following up one ray at a time to its origin.

Dr. Towler was disposed to hold to the received view, that the imperfection, so to speak, was corrected by the other senses.

Dr. Noyes took exception to the theory of the paper of Prof. Towler, and said that we have demonstrations, first, that some means are necessary to adapt the eye to vision of objects situated at various distances; second, a change takes place in the form of the crystalline lens to effect this purpose.

The necessity of accommodation is proved by the following facts: If with one eye shut one looks at the finger held in front of him, all objects beyond and in the same line are indistinct; if one looks at a speck in a pane of glass, everything out of doors is seen very imperfectly, because pictured with hazy outlines on the retina; if the eye of a white rabbit be extirpated, and a bright light be put in front of it, a distinct image may be seen on the back part of the eye when the light is at a given distance; but when brought much nearer, or carried away much further, in both cases the outlines of the image are blurred; if into a living eye you drop a solution of sulphate of atropia, gr. ij. ad ℥j., a normal eye will see distant objects clearly, but cannot see to read; furnish a convex glass, ten or twelve inches focus, and the difficulty is removed; the atropine has not only dilated the pupil, it has paralysed the ciliary muscle, which is the active agent of accommodation.

When the crystalline lens has been removed, as after an operation for cataract, the eye being in all other respects sound, the patient cannot see distinctly at a distance unless he have a glass of about three and a half inches focus; neither can he read without a glass, nor with the same glass suitable for distant vision; the reading glass must have a focus of about two and a half inches. The difference between these two glasses expresses the range of adjustment to be provided for, when objects near by or moderately distant are to be focussed in succession on the retina. The difference between glasses of two and a half and three and a half inches focus is not small, being about one-ninth—the same as between glasses six and eighteen inches focus. These facts prove the necessity for accommodation.

Second. The crystalline lens acted upon by the ciliary muscle, provides for the function of adjustment. It does so, not by changing its place, but by altering its form. This was proved in 1856 by Prof. Helmholz, then of Bonn, now of Heidelberg, to whom we also owe the ophthalmoscope. He proved it by measuring the size of the images reflected from the surfaces of the cornea and crystalline lens. There are three such reflections; two from the lens and one from the cornea. Their observation has long been known as Purkinje's experiment. Helmholz contrived an instrument which he called the ophthalmometer, and which can now be procured from Paris, to measure these images, and his observations have been tested, and are now accepted as perfectly conclusive. When an eye beholds a distant object, and then adjusts to see a near object, the reflected images spoken of behave as follows: that from the cornea undergoes no change; that from the anterior surface of the lens, which is larger than the other images and upright, becomes smaller, and advances; that from the posterior surface of the lens, which is inverted and small, becomes a very little smaller. Helmholz used means to secure from each reflecting surface two images and could then get data, not only from change of size, but also from change of place and relations to each other.

The inference from these experiments is now fully received in physiological optics, that, in the function of accommodation, the cornea does not change its curve, the anterior surface of the crystalline becomes more convex, and the posterior surface, to a less degree, also becomes more convex. The lens thus increases in thickness from before backwards, and its diameters in the equatorial plane diminish.

This may be observed by the naked eye, by looking in profile at a person's eye, who alternately fixes a remote and near object without moving the globe. On fixing the near object the pupil contracts, and also pushes forward nearer to the cornea.

The theory that the thickness of the retina suffices for a certain range of accommodation is not new. It originated with Stellwag, but was made to apply only to a range reaching from infinity to a distance of thirteen feet; optically, a very small fraction of the full range of accommodation. But this theory has not been sustained. Donders, who is now the acknowledged authority on this subject, says, page 320, "My investigations have led me to the conviction that in aphakia (that is, when the crystalline lens is absent) not the slightest trace of accommodative power remains." Stellwag's mathematics have been severely called in question by Zehender, who goes through the alleged errors in detail. So this theory has, at the present day, little foundation even in its modified form.

Into the anatomy of the retina there is not time now to enter.

On motion, the following papers were referred to the Publishing Committee without being read:

A paper on "Vomiting of Fat," by Dr. H. Salmon.

A paper on "Meteorological Remarks," by Dr. J. P. Loines.

"A sketch of John M. Pruyn," by Dr. Vanderpoel.

A paper on "Fatal Hæmorrhage succeeding Pneumonia," by Dr. J. L. Watkins.

Three papers from Dr. J. G. Johnson, of Brooklyn, were ordered to be returned to the author, because he is neither a permanent member nor a delegate, and because the number of papers from permanent members and delegates is so great, that voluntary papers from others cannot be reached in the time allotted to the sessions of the Society.

Recess until 3 P.M.

Afternoon Session.

The Society convened promptly at three o'clock. After the reading and approval of the minutes, a communication from Dr. James M. Toner, of Washington, D.C., soliciting the coöperation of members in the preparation of a medical biographical dictionary, to comprise the names of deceased American practitioners from the earliest dates to the present, was received, and, on motion, was referred to the Committee on Publication.

Dr. O. White moved that the Secretary be directed to transmit to the officers of each medical college in the State a copy of the resolution adopted at the morning session relative to the refusal of certificates from irregular practitioners. Adopted.

Dr. C. C. Bates offered the following, which was laid upon the table:

Resolved, That it will be conducive to the interest and advancement of the medical profession of the State of New York to establish a degree and title in medicine which shall characterize a higher degree of medical and surgical knowledge than that indicated by the degree of Doctor of Medicine, or M.D., as now used.

Dr. J. Anderson offered, in behalf of a gentleman not a delegate, a preamble and resolutions bearing upon the subject of criminal abortion, which was on motion laid over for discussion at a future meeting.

Dr. John C. Dalton, by previous arrangement, then remarked upon the subject of "Vivisection" in the following language:—

Mr. President and Gentlemen of the New York State Medical Society:

With your permission, Mr. President, I would ask the attention of the Society for a few moments to a subject which directly concerns us as affecting the interests of medical science; and as these interests are, to so great an extent, under the care and protection of the State

Medical Society, I feel that no other apology is needed for bringing the matter to your notice at this time.

It may be known to many of you that the subject of Vivisection, or experiments upon animals, as a means of investigation in physiology and the other branches of medicine, has been called in question of late in a somewhat unusual manner. My attention has been drawn to it still more recently from the fact that a bill has been proposed to the Legislature now in session, which appears to have for its object, among other things, to interfere with, or prohibit entirely, such investigations. A few days ago, the President of the Society for the Prevention of Cruelty to Animals, of New York, made an address to the members of the Legislature for the purpose of inducing them to give to the provisions of the bill a legal sanction.

We should have a right to expect that the author of such an appeal, made in such a way, would have sufficient regard, both for the Society which he represented and the Legislative Body whom he addressed, to confine himself strictly within the limits of reason and propriety; and especially that he would avoid all injurious misstatements and exaggeration. Unfortunately, this was not the case. For the address referred to contains the most extravagant misrepresentations, calculated to mislead the members of the Legislature, and to injure in a serious manner the interests of medical science, and the cause of medical education.

Among other highly-colored pictures of supposed cruelty of various kinds, I find, in the published report of the address, the following paragraph, headed—

SCIENTIFIC BARBARITY.

"But of all the horrible sufferings inflicted upon the animal creation, those which are done in the name of anatomical science are at once the most fearful and revolting, and the most plausibly and tenaciously, though falsely advocated. Even for the monsters in human shape who nail, under this pretence, living dogs to a table, and then dissect them alive; and those who, fastening a horse so that he cannot stir a limb, begin, some to open his chest, some to saw into his skull, and others to probe the interior of his eyes—even for these are found apologists. The most degraded subjects of Ashantee, maddened by the thirst for human blood, never descended to outrages so eccentric and so cruel as the modern physiologists of Paris, Lyons, and Alfort, in their cool hours of study, and these horrors are, alas! imitated here in new and generous America. The vivisectionist, or dissector of living animals, may be fitly compared to the remorseless inquisitor who delights to wring confessions of heresy from his victims by the most protracted tortures. I feel admonished by a sense of duty to recount some of the horrors attending this branch of physiological science, as it is improperly termed, more especially as a prominent professor in the school of brute torture has lately undertaken to defend the system. Mr. Murdoch, the distinguished head of the Scottish Veterinary College, some time ago made a visit to the school at Alfort, near Paris, and he thus reports:—'The institution is supported by the government, and has two hundred and fifty students. Upon entering what appeared to be a place of dissection I found myself surrounded, not with dead, but living subjects. The building was furnished with many strong pillars rising from the floor to the roof. Living horses were fastened to these pillars with every possible device, by the head and feet, to prevent their struggling, and upon each subject six or more pupils were engaged in different surgical operations. The sight was truly horrible. The operations were begun early in the forenoon. It was nearly three o'clock in the afternoon when I entered, so that the poor wretches, as may be supposed, had ceased being able to make any further violent struggles; but the deep heaving of the chest and the look of the eyes, where these were yet remaining in the head, were horrifying beyond description. The students had begun their day's work in the least vital parts of the animal. The trunks were there, but they had lost their tails, ears, and hoofs, and the pupils were now engaged in performing the more important operations, such as tying the arteries, trepanning the cranium, etc., cutting down upon the more sensitive parts.' But methinks I hear the inquiry made, 'Are such things enacted in our own country?' I am ashamed to answer yes; barbarities similar in character, if not in degree; for in my official character I have taken measures to convince myself of the fact. Moreover, the cruel system of vivisection has lately been defended in New York in a medical college and in a letter addressed to the President thereof, and published in the newspapers. In that letter it is averred that vivisection is not a cruel practice, but, on the contrary, an eminently proper one, and that it would be a great misfortune for medical science if it were abandoned or neglected."

Now this description of Mr. Murdoch's visit to the veterinary school at Alfort purports to be a true account of what takes place at that institution, as related by an eye-witness within a reasonably recent period. Probably most of the members of the Society will be surprised to learn, on the contrary, that it is extracted from a veterinary journal published over twenty years ago, and that for the last eight or nine years, at least, the mode of conducting the veterinary operations at Alfort has been altered in many respects from what it was previously to that time. Such, however, is the case. Mr. Murdoch's visit to Alfort was made in 1844, and the above account of it was published in the London Veterinarian in July, 1846. Since that time both the administration and conduct of the institution have undergone various changes; and still later the whole subject has been fully discussed in the French Academy of Medicine. These discussions have been published in the periodical transactions of the Academy, and are easily accessible. In the session of September 8, 1863, M. Reynal reported that already under a former direction, at least fifteen years previously, the number of operations performed had been considerably diminished; and that for the past five years, under his own administration, they had been still further reduced; that at that time the most painful operations, such as cauterization and amputations, were only performed upon the dead body; that the council of instruction had, in general, abolished those operations which could be as well performed upon the dead as the living body; and that in those which were still performed upon the living animal, the methods of procedure had been modified in various instances, so as to reduce to a minimum the suffering of the animal.

I refer to these particulars to show the unreliable character of the statements in the recent address to the Legislature, and the erroneous inferences to be made from them. A picture is drawn of veterinary operations as they existed in a foreign country nearly a quarter of a century ago, and is presented as a truthful description of what takes place there to-day. But this is not all. It is further stated in the address, that similar barbarities are enacted in America, and that the system of horrors, like those described at Alfort, is defended by medical professors, under the name of vivisection, in our own country.

Nothing can be more false than this statement. The system described above, of surgical operations on living animals for the purpose of acquiring skill or dexterity

in manipulation, has never been adopted, or in any way resorted to in this country, and it has never been defended here, so far as I am aware, by any one connected with the medical profession. These facts are undoubtedly notorious to the members of the Society, but they are not so, perhaps, to persons unfamiliar with medical affairs; and any reckless assertion to the contrary might, if uncontradicted, receive credit and exert an influence which ought not to belong to it.

The effect of such assertions is to represent in a false and invidious light the system of experiments upon animals for physiological and pathological investigation, and to excite against it an unreasoning and offensive prejudice. The truth is that physiological experiments, as they are actually performed, have nothing whatever to do with either the real or fancied horrors of a veterinary operating room. They are experiments upon the living body for physiological study, like the experiments in chemistry with acids and salts, or those in physics on liquids and solids; and they are equally necessary and useful in the one case as in the other. In point of fact, they are not necessarily accompanied by torture, and in the great majority of cases do not even require the infliction of any pain whatever. The suffering of the animal operated upon is habitually prevented by every means in the power of the experimenter. The idea of torture as connected with physiological experiment is one which exists only with those who are practically ignorant of the subject; for the infliction of pain, in nine cases out of ten, would obstruct the experiment and interfere with its results. The ignorance which attributes cruelty and barbarity to physiological and pathological experiments, is the same with that which represents the surgeon as delighting to hack and mutilate the body of his patient, in order to gratify a ferocious disposition.

The value of experiments upon living animals in the study of physiological medicine hardly requires to be discussed in an assembly of medical men. It has never been more fully or unanimously expressed than in the debates in the French Academy, three or four years ago, to which I have already alluded. Prof. Béclard said, in the course of his remarks, "it is not necessary, in this assembly, to prove that, of all the means which physiology has at its disposal, experiments upon living animals are those which have been the most serviceable to science. The greatest and most fundamental discoveries could only have been made by experimenting upon living animals. If you are investigating life, it is vitality alone that can give the answer."

M. Piorry, in continuing the discussion, said, "The medical practice of the present day is founded upon physiological data, applied by clinical pathology to the study of disease. Now, a man must know nothing, and must have read nothing, not to acknowledge that vivisection has been the point of departure, or at least the most reliable means for discovering the mysteries of our animal functions."

According to M. Bouley, "It cannot be disputed by any one competent to judge, that vivisection constitutes a means of investigation by which physiology finally emerged from the era of dreams and conjectures, and by which at last it became positive, that is to say, scientific, and was enabled to place itself on the solid basis of observation. All this has been abundantly recalled by those who have preceded me. It is unnecessary for me to repeat it."

Mr. Gosselin said that "he believed with MM. Béclard, Bouvier, Piorry, Vernois, and Bouley, that no one could dispute the utility of vivisection, and that courses of experimental physiology were deserving of encouragement, since they multiply the means of scientific inquiry."

I have ventured to occupy the attention of the Society with this subject, because I believe that the recent attempts to oppose physiological experiments are of the same kind with those formerly made to cast odium and discredit on anatomical dissections. They are directed by a similar unreasoning motive, and appeal in the same way to an ignorant and groundless prejudice. If successful, they would deprive medical science of a valuable means of improvement, perhaps no less important than that furnished by dissection. In this State we are indebted to the intelligent liberality of the Legislature for an enactment legalizing anatomical dissections; and it would be unfortunate if there should come from the same source any obstacle to improvement in the study of physiology.

Dr. Dalton's paper was, on motion, referred to the Publication Committee, and a resolution adopted that a committee be appointed to prepare a memorial to the Legislature in regard to the proposed interference with physiological and pathological investigations by means of experiments on animals.

Doctors Crandall, Parker, and Vanderpoel, were appointed such committee.

Dr. Willard Parker then read a paper upon "Cystitis and Rupture of the Bladder treated by Cystotomy." He was led to the adoption of this method by a case of cystitis which disappeared during the healing up of the incisions made for the extraction of a vesical calculus. Upon this hint he acted, and was rewarded with some remarkable results in the way of cure. He then gave the details of several cases occurring in his own practice and that of Professor Eve. He looked upon absence of a desire to urinate as a pathognomonic symptom of rupture of the bladder.

Dr. Corliss inquired whether catheterism would not answer as well as cystotomy?

Dr. T. A. Emmet said that vesico-vaginal fistulas had been purposely produced, and the urine allowed to be drained off, until the organ had recovered its tone, after operations for stone in the female, as well as in chronic thickening of the bladder, and cystitis following parturition. His results were everything that could be desired.

Dr. Parker appreciated the objection of Dr. Corliss, but he would state that he had only resorted to cystotomy after all other means had failed; and yet, after all, he saw nothing very formidable in the operation. It was simply providing a sluice for the escape of an irritating fluid, and allowing the viscus rest.

Dr. Wheeler, of Mass., had a patient who, in a fit of delirium tremens, ruptured his bladder in a fall from a window. He believed that had he resorted to cystotomy, as recommended by Dr. Parker, instead of temporizing with the catheter, the patient might have been saved.

Dr. March was favorably impressed with the idea advanced, and related several cases bearing upon the point.

Drs. Corliss and Hyde expressed their indebtedness to Dr. Parker for his idea of rest as an element of treatment.

Dr. Dalton, at the request of the Society, remarked upon an original painting by Edward Hammon, of "Vesalius performing his first Dissection," which was on exhibition by its owner. The picture, he said, copies from which are justly favorite ornaments in physicians' offices, represents the anatomist in a secluded, imperfectly-lighted upper-room, to which he has betaken himself by way of security against intrusion, reverently, perhaps determinedly, gazing upon a crucifix above his table, with one hand about to grasp his knife, while he feels with the other for the bony processes

which constitute the landmarks of his proposed inc sions. The scene carries us back to the condition of our science some three hundred years ago, when to dispute the dogmas of Galen was the most unpardonable heresy. But Vesalius, having concluded that nature was the safest guide, steadily pursued his studies at the risk of becoming at any moment the victim of the superstitious rage of the populace. He does not disregard the injunctions of religion, but the interpretation which others have given it. His zeal brought him not only well grounded knowledge, but fame, since he was invited to Padua, the centre of medical knowledge, and lectured in the schools of Bologna and Pisa. Nor was this all, for he was honored with the position of first physician to the Emperor Charles V., and thenceforth resided chiefly at Madrid. Of his subsequent history but little is known, except that he was sentenced by the Inquisition to perform a pilgrimage to the Holy Land as an expiatory penance for having, it is alleged, opened the body of a Spanish grandee before life was extinct. He obtained the permission of the relatives to make the autopsy, but they claim to have seen the heart palpitate, and popular clamor ended what superstitious ignorance began. While at Jerusalem, he received an invitation from the Senate of Venice to occupy the chair of Anatomy at the Paduan University, rendered vacant by the death of Fal'opio, one of his own disciples. The vessel, however, in which he embarked was stranded on the coast of Zante, where he is reputed to have died in 1574, aged about sixty years. At all events, nothing was known of him after he left the Holy Land.

Dr. Noyes stated that Brussels, the native city of Andreas Vesalius, who was indeed a victim of the gross prejudices of his age, was now honoring his memory by a monument.

Dr. Dalton then offered the following, which was adopted:

Resolved, That the thanks of the Society be presented to Senator White, of Syracuse, for his politeness in submitting to the inspection of the members, a picture equally valuable as a work of art, and interesting as marking an important epoch in the history of medicine.

Dr. A. N. Bell read, in behalf of the "Committee on Hygiene," a portion of their report bearing more particularly upon the sanitary arrangements proper to be enforced on board of emigrant vessels. Report received, and referred to the Committee on Publications.

Dr. J. Swinburne thought that the orlop decks had little if anything to do with the generation of cholera, the England having only lost fifteen per cent. of its passengers against over double that number of those on board of vessels not so provided. Cholera did not always appear upon the orlop deck; if no poison is aboard, there can be no cholera. He hoped the Society would take up the consideration of the important topics of Dr. Bell's report, particularly that relating to the proper care of the emigrant.

Dr. E. Harris, in connexion with the subject, offered a preamble, accompanied by the following resolution, which was unanimously adopted:

Resolved, That the New York State Medical Society hereby expresses the conviction of its members, that the advice and orders of the sanitary and quarantine commissions of the Metropolitan District, in the port of New York, concerning the cleansing and purification of vessels, persons, and personal dunnage, be facilitated in their examination, not only by the owners of vessels, but by the timely legislation and aid of the State and National authorities.

Resolved, That the public welfare requires their harmonious efforts, and that it is desirable that they should at once seek necessary aid from the State and National authorities, if sanitary security against cholera and other exotic infections is now inadequate without such additional aid.

Dr. Squibb moved that the Committee on Hygiene be continued. Carried.

A resolution calling for a memorial to the Legislature on the subject of vivisection, was carried.

Drs. Crandall, Vanderpoel, and Willard Parker, were appointed a committee to prepare the same.

Dr. Bibbins moved a continuance of the Committee on Hygiene. Carried.

Dr. Hyde offered the following, which were adopted:

Whereas, Boards of Health and Trustees of Hospitals, in various cities, have been petitioned to allow homœopathic practitioners to treat patients who may be received into those institutions according to their system, either in separate hospitals, wards, or individuals; and as there is some discrepancy in the opinions and action of physicians who have authority to direct, or who may be requested to advise upon such requests; therefore,

Resolved, That a Committee of Three be appointed to consider this subject in its bearing upon medical ethics and that they be requested to report to-morrow.

The Chair appointed Drs. Hyde, Cook, and Cobb, as such Committee.

Dr. Hyde asked to be excused from service, and Dr. Brinsmade was appointed in his stead.

Dr. Anderson's preamble and resolutions upon criminal abortion were, on motion, laid upon the table for discussion on the morrow.

Dr. Squibb offered the following:

Resolved, That the Secretary and Committee of Publication be instructed to use woodcuts instead of lithographs in the illustration of papers to be hereafter published in the Transactions whenever practicable, and to admit no illustrations unless in their opinion absolutely necessary to explain the text, or unless the illustrations are paid for by the authors of papers; and that no illustrations be admitted, though paid for by such authors, unless approved by the Publishing Committee.

Resolved, That this instruction be not applied to papers already in course of publication, the illustration of which may have been commenced by lithograph.

Resolved, That the Committee of Publication be also instructed to reduce the cost of publication of the Transactions in any way that in their judgment may be practicable, and to inform the Speaker of the Assembly of the action of the Society upon this subject, with a due acknowledgment to the Assembly of the very important aid and favor given to this Society in its earnest efforts to be useful to one of the most important general interests of the State, by the publication of its annual volume of Transactions. Adopted.

Dr. Squibb read the following papers by title, and moved their reference to the Publishing Committee, which was adopted:

"Continuation of Essay on Double Monstrosities," by Dr. G. J. Fisher.

"Cases of Pneumonia, attributed to Embolism," by Dr. A. Churchill.

"Public Aspects of the Life and Labors of Jos. M. Smith," by Dr. E. Harris.

"On the Structure and Functions of Capillary Blood-vessels," by Dr. H. N. Eastman.

"The Medical Use of Electricity," by Dr. George M. Beard.

"Notes on the Progress of Cholera in the Epidemic of 1865-66, with Suggestions," by Dr. Elisha Harris.

Recess until 8 P. M.

EVENING SESSION.

The delegates met in the Assembly Chamber at the hour appointed. DR. WILLIAMS, the Vice-President, introduced

DR. HUTCHISON, the President, who delivered an eloquent discourse upon "Moral Power, not Legal Enactments, the best Agency in effecting Reform." He said that in this country, where the masses are an integral part of the government, which is far from being the case in Europe, the largest liberty prevails; and that it is unnecessary, even inexpedient, to attempt the protection of any profession by legal enactments. The people not being in the position of wards or pupils, have had their wits sharpened to a quick sense of their rights. For his own part, he would advance the opinion that the medical profession neither asks nor expects any exclusive privileges; it can live and prosper as well as the church, independent of State patronage. It was wisdom on the part of government to refuse to prescribe a curriculum of study. Our clergy are as intelligent as the same body in the Old World, in the absence of such laws, which in their case, as well as our own, acts as an incentive. Let us act above all laws, save the Divine; we must be our own protectors.

It is neither advisable nor desirable to suppress quackery; the laws looking to that end have been imperfectly administered, and have been accompanied by so many drawbacks that they have been repealed at the request of the original petitioners.

The act of 1806, which placed the empiric under serious disability, and rendered him liable to fine or imprisonment, or both, and which as a law was highly lauded by Dr. Romayne in 1809, was among the first attempts to give the profession a proper status. But this law was never in reality enforced, notwithstanding the self-gratulations of the physicians of the time. In 1830, the Thomsonians procured a modification, making the law penal, not criminal; but this had no effect in keeping the sect from fulfilling its destiny. In 1844 all restrictions were abrogated, and the people allowed to invest in the lottery of quackery, in which human health and life were at stake. The Homœopathic State Medical Society, in 1862, and the Eclectic State Medical Society, in 1865, were endowed with the same privileges as ourselves.. The opinions entertained even by the best educated are merely vulgar errors; and it is therefore no very great matter of surprise that our legislators should be tinctured by them. The public, not the profession, are the sufferers; one form of quackery, each in turn short-lived, will succeed another until public opinion is properly enlightened. Socrates professed to give his disciples no new ideas; he merely taught them to think for themselves, and make a proper use of the lessons of the past.

With regard to medical instruction, he would say that between the colleges and their private instructors a joint responsibility rested. The student must start right by a systematic course of reading, accompanied by examinations. He was aware that office instruction was often a mere sham. This should be corrected. A judicious blending of clinical with didactic teaching was the best; always, however, bearing in mind, that neither surgeons nor physicians are made by merely witnessing operations, or observing the treatment of others.

The profession should be thoroughly organized in county societies, and the register of legitimate practitioners should be given, as is the case of the Kings County Society, in the public prints at stated periods; but it is to be regretted that some of these county organizations are no longer in operation. We should keep our own skirts clear. The lines of demarcation should be drawn broad and deep. Argument, raillery, and sarcasm, have each been found to be powerless in compelling quackery to loosen its hold. The profession have succeeded in keeping *Hahnemann*-ism out of the army and navy, notwithstanding the powerful machinery brought to bear in its favor. As a system, however, it will soon be effete, and it would not be advisable to warm it to life.

Let us rapidly review the efforts of these charlatans in the city. In 1849, a petition to treat cholera on the homœopathic plan was referred to the Medical Council, composed of Drs. J. B. Beck, Jos. M. Smith, and Samuel W. Moore, whom the Board of Health had associated with them for advice. Their report was adverse, inasmuch as all other sects were entitled to the same privileges. The report was adopted by the Sanitary Committee; and if this were the sole act of the Medical Council, it would be sufficient to embalm their memory.

In 1857, the homœopathists made another pass for public recognition; they desired one-half of Bellevue Hospital to be surrendered to them. The Hon. Washington Smith, however, as Chairman of the Committee to whom was referred the petition, made an able and adverse report, in which he conclusively proved that all advances had been made by the regular school; and by quotations of statistics derived from the European hospitals, in which the test of comparison had been allowed, proved that to inaugurate its practice here would be a positive wrong. The pertinent question was put—Do these inmates ask for a change? The governors accordingly refused to assume any responsibility.

In 1861–2, a petition praying for the introduction of homœopathy into the public service, with 35,000 names, loomed up in Congress, and the then Surgeon-General, Finlay, was understood to have favored its trial. The profession were aroused; the New York Academy of Medicine and the Oneida County Medical Society sent in counter-petitions, which probably had their effect in the defeat of the project.

Last summer, during the prevalence of the epidemic, they made another effort; and much to the surprise and regret of the profession, the Sanitary Committee recommended that one-half of the Five Points Hospital and one-fourth of the Battery Barracks Hospital be given to them for a test of their system. He would concede that there was a great pressure brought to bear upon the Committee; but how would we have estimated Grant had he yielded to the prejudices of the newspaper generals of the political class? Does the end justify the means? As well might infirmaries be supported by stolen moneys. Again, these petitions to the Board of Health did not emanate from the stalwart element in our population, from the honest and the poorer classes, who, by the way, as proved by comparing the crowds at the different dispensaries, regular and otherwise, do not as a rule patronize heresies; but they came from those having leisure to imagine themselves afflicted with "all the ills to which flesh is heir." The Code of Ethics commands us to discountenance quackery of every shade; much less, then, are we expected to recommend it. Is it surprising, then, that when the profession were called upon by the Academy of Medicine, who claim the paternity of the Health Bill, to recommend all the acts of the Board, they should have made an indignant exception to this one unfortunate concession? The interests of the public and the profession are thus too sacred to be tampered with. We should in particular frown down all measures tending to degrade the profession.

In conclusion, Dr. H. alluded to the attempt to obstruct vivisection as a means of scientific advance, on the alleged ground of cruelty; and hoped that the statute book would be deformed by no such law. After the passage of a resolution requesting from the President the MS. of his address for publication, the Society adjourned to the residence of Mr. Archibald McClure, in State street, where they were magnificently entertained. Some three hundred guests, representing the various liberal professions, were present, and the company dispersed well pleased at a late hour.

THIRD DAY—MORNING SESSION—THURSDAY, Feb. 7.

The Society convened at 9 A. M.

Prayer by Rev. Dr. Bailey.

The minutes of previous session were read and approved.

Dr. Crandall, from the Committee appointed to prepare and report a memorial to the Legislature, in regard to the proposed interference with physiological investigation, by means of experiments on animals—made the following report, which was accepted and adopted:

To the Hon. the Legislature of the State of New York:

THE members of the Medical Society of the State of N. Y. now assembled at their annual meeting in the City of Albany, respectfully represent to your Honorable Body:

That they are informed that a bill has been, or is to be, presented for your consideration at the present session, to make more stringent the Act for the Prevention of Cruelty to Animals, and that this bill is intended or calculated, among other things, to interfere with or prohibit experiments upon animals for physiological and medical purposes, on the ground that such experiments are barbarous and cruel, and, at the same time, useless or unnecessary for the interests of humanity.

While the members of the Medical Society sympathize to the fullest extent with a just abhorrence of cruelty, and with all attempts to prevent its infliction on the inferior animals, they are also convinced that these attempts should be always made in a reasonable and proper way, with a full understanding of the subject, and in such a manner as not to interfere with other praiseworthy objects, or to injure other legitimate attempts to advance the interests of humanity.

In particular, they fully believe that legislative enactments to prevent the employment of experiments on animals for physiological study would be injurious to medical science, and would interfere with the improvement of medical practice. As the object of all medical knowledge is the study and cure of disease, anything which interferes with the improvement of medical knowledge must also diminish the efficacy of the healing art.

Experiments upon animals have always been a most valuable aid in medical investigations. They have often assisted in accomplishing important discoveries, and without their help, medical knowledge at the present day would have been in a position much inferior to that which it actually holds. The members of the State Medical Society would, therefore, view with regret the passage of any laws calculated to prohibit or interfere with this kind of physiological investigation.

It is true that all such experiments should be performed with discretion, and in such a way as not to inflict suffering in a wanton and cruel manner. Your memorialists believe that, in point of fact, they are now performed, when necessary, in a proper and legitimate way, and with a due regard to the teachings of humanity; and furthermore, that existing laws are amply sufficient to prevent the exercise of wanton or cruel torture, if any such should at any time be attempted.

Your memorialists would, therefore, respectfully represent, for the reasons given above, that physiological experiments upon animals are necessary, proper, and valuable for the due cultivation and improvement of the medical art; that they may be, and in point of fact are, performed without the infliction of wanton suffering or cruelty; that they lead to results which are of benefit both to mankind and to the animal creation, in the prevention and alleviation of disease; and that it would be injurious to the interests of science and humanity to deprive the medical art of the assistance which they afford.

Resolved, That the above memorial be adopted by the Society, and that the President of the Society be instructed to transmit a copy of it, with a copy of this resolution, to the two branches of the Legislature, and to the Governor of the State of New York.

C. M. CRANDALL,
WILLARD PARKER,
S. O. VANDERPOEL.

A motion to suspend the regular order of business, with a view to taking up and discussiug the preamble and resolutions offered by Dr. Anderson, was lost.

On motion of Dr. White, a vote of thanks was offered to Archibald McClure, Esq., for the elegant and refined entertainment given the members of the Society at his residence last evening. Carried.

A vote of thanks was also tendered the medical profession of the Albany County Society for the entertainment given the State Society on the evening of the 5th inst.

After the reception of the report of the Committee on credentials, etc.,

A motion to suspend the regular order of business for the purpose of action upon Dr. Anderson's preamble and resolutions was lost.

DR. W. PARKER rose to a question of privilege. Since the action of the Metropolitan Health Board had been made the subject of considerable animadversion, in that it was alleged they had recognised the claims of homœopathy, by admitting the adherents of the so-called system to equal privileges with the regular profession, he desired to make a simple statement. As soon as the Health Board became an established fact, fifteen inspectors were appointed, ten for New York, the remainder for Brooklyn, and the Sanitary Committee, consisting of Drs. Crane, Stone, and himself, was organized. It was soon found that a strong element in favor of homœopathy existed in the Board from the start. The President of the Health Board, the President of the Metropolitan Police Commission, were strong adherents of homœopathy; and another member of the latter body employed as a family attendant one regarded as a leading expounder of its doctrines and precepts. We successfully opposed this element in its attempts to gain for its friends a foothold in the Board by the appointment of homœopathic Inspectors, despite the leanings of some of the newspapers to the heresy, and the zeal of three homœopathic reporters, ever ready to catch at any remark detrimental to the claims of the cause which they had espoused. The precedent that homœopathists were appointed, and were serving as Police-Surgeons, was quoted, but without affecting the policy as marked out by ourselves. Our colleagues then allowed the matter to rest until cholera manifested itself in the metropolis, and additional arrangements were necessary to meet the enemy. Drs. E. B. Dalton, E. Harris, and Stephen Smith, in view of this emergency, were called into our councils, and it was then

determined to secure, if possible, the dispensaries as allies, since they already had in admirable working order a system which could reach, if necessary, every inhabitant of the cities of New York and Brooklyn; it was then proposed and subsequently carried into effect, to connect every dispensary to the Headquarters of the Board by police telegraph, so that only two minutes elapsed between the reception of information and the starting off of the horses conveying the disinfectants to the patient pronounced to be affected with the pestilence. But at the conference between the Committee, as above constituted, and the trustees of the dispensaries, the homœopathic dispensaries also claimed representation, and among the trustees of the latter appeared Prof. Dwight, of the Columbia College Law School, together with other gentlemen of equal standing as citizens.

The Sanitary Committee were not by any means inclined to yield the point that all the proposed hospitals should be in charge of the regular practitioners; but they finally made a compromise, assigning particular wards to the homœopaths, but reserving the superintendence of the institutions to those popularly known as belonging to "the old school," with Dr. Stephen Smith as Inspector-General. But the homœopaths objected to this surveillance, as they styled it; they desired hospitals of their own; and to awaken public sympathy, they published statistics, according to which 80 or 90 per cent. of their patients were saved, while only 50 per cent. recovered under "allopathic" treatment. This was their ratio throughout the country. When asked what were the particular features of homœopathy, they could not tell, although it is generally conceded that "*similia similibus curantur*" and infinitesimal doses had been abandoned. In Dr. Parker's own opinion, the so-called system was nothing else than charlatanism; but the Sanitary Committee, placed as they were in the position of the soldier upon the eve of an important battle—to refuse to participate in the fray because another, whose principles they did not admire, insisted upon fighting at their side—would have been cowardice.

The Committee could not resign, because they were charged with a very grave responsibility as conservators of the public health; in short, the homœopaths objected to every proposition, even the reasonable one that all medicines, both "allopathic" and homœopathic, should be furnished through the Board of Health, and that careful records should be kept of the state of the patient, etc., with no other restrictions than those of regimen and diet. "They would of course," they said, "get only the bad cases." The Committee then challenged them by leaving the question of diagnosis to the arbitration of a third party, as a safeguard against the fallacious element in statistics of this kind, of confounding trifling affections with grave maladies. The challenge to this day remains unaccepted; for, according to a gentleman who has left their ranks, "they dare not take up the gauntlet." The policy of the Committee he considered the only one that could have been adopted under the circumstances, and its wisdom had been proved by the result.

Dr. Harris confirmed the remarks of Dr. Parker, and thought it was no part of the Committee's duty to instantly resign, as many of their brethren, who had heard only *ex parte* statements, had insisted. They had not consulted the profession at large, it is true; but they had met the question as business men, who had determined upon a wise, manly policy.

Dr. Swinburne, although he was not connected with the Committee in this portion of their duties, had still watched their course with much interest, and did not hesitate to endorse it. These homœopaths, during an epidemic, always have more cases of "typhus fever," "cholera," etc., than any one else.

For his own part he was well satisfied that in their statistics of cholera, the homœopaths also embraced cases of mere choleraic diarrhœa, of which the "regulars" at Quarantine lost only forty out of 2,000 cases. Were these reported as cholera, the statistics of the profession proper might reduce the mortality to a very low figure indeed.

Dr. Corliss made a few remarks, the tenor of which was, that care should be taken not to give too much prominence to a matter of really trifling importance. He thought that there was "too much talking out in meeting."

Dr. Quackenbush, from the Nominating Committee, presented the following report, which was accepted and the candidates elected:—

The Committee respectfully submit the following report:

For President—John P. Gray, of Utica.
For Vice-President—Lake I. Tefft, of Syracuse.
For Secretary—Wm. H. Bailey, of Albany.
For Treasurer—J. V. P. Quackenbush, of Albany.

For Censors.

Southern District—J. R. Van Kleek, of New York; Andrew Otterson, of Brooklyn; Samuel A. Purdy, of New York.

Eastern District—B. P. Staats, of Albany; T. C. Brinsmade, of Troy; P. McNaughton, of Albany.

Middle District—M. M. Bagg, of Oneida county; C. B. Coventry, of Oneida county; A. F. Doolittle, of Herkimer county.

Western District—Alexander Thompson, of Cayuga county; C. M. Crandall, of Allegany county; Edward Hall, of Cayuga county.

For Committee on Correspondence.

First District—Ellsworth Eliot, of New York county.
Second District—William Govan, of Rockland county.
Third District—H. A. Carrington, of Lansingburgh.
Fourth District—James Ferguson, of Glens Falls.
Fifth District—Samuel G. Wolcott, of Utica.
Sixth District—J. G. Orton, of Binghampton.
Seventh District—Harvey Jewett, of Canandaigua.
Eighth District—Sanford Eastman, of Buffalo.

For Permanent Members.

First District—Jared Linsley, Alfred Underhill.
Second District—Wm. L. Appley, Wm. C. Anderson.
Third District—Levi Morse, Henry B. Salmon.
Fourth District—R. Blairis, Lyman Barton.
Fifth District—Wm. S. Crandall, C. R. Agnew.
Sixth District—Devillo White, Z. H. Blake.
Seventh District—Wm. Manlius Smith, Darwin Colvin.
Eighth District—H. H. Langworthy, W. C. Wyckoff.

Eligible for Permanent Membership.

First District—Wm. B. Bibbins, Wm. Nelson Blakeman, Thos. Addis Emmet, Thomas S. Dahan, Jas. J. Connolly, Wm. T. White, Christopher Prince, Wm. M. Chamberlain, Ellsworth Elliot, Wm. F. Thoms, Robt. Newman, Andrew Otterson, S. F. Spier, Jas. Anderson.

Second District—Clark A. Nicholson, Lewis H. White, Jacob S. Wigton.

Third District—J. R. Bonham, James L. Babcock, John T. Lansing.

Fourth District—A. Pollard, J. J. Buckbee, John P. Shaver, Arthur S. Wolf.

Fifth District—Alonzo Churchill, J. B. Murdock, Wm. Russell, Frank D. Beebe, Thos. B. Smith.

Sixth District—S. H. French, 2d, A. S. Coe, W. C. Way.

Seventh District—Drs. Button, W. S. Hoffman.

Eighth District—J. F. Whitbeck.

For Honorary Members.

C. E. Brown-Séquard, Mass.; Middleton Goldsmith, Kentucky.

Eligible as Honorary Members.

Joseph K. Barnes, Surgeon-General U.S.A.; Wm. McCollon, of Woodstock, Vt.

For Honorary Degree of Doctor of Medicine.

John Van Neps, of Brooklyn, N. Y.

Delegates to the National and Quarantine Convention.

Drs. Elisha Harris, John H. Griscom, John Swinburne, John W. Green, Alden March, James R. Wood, Augustus Willard, A. N. Bell, John Ordronaux, H. W. Dean.

Delegates to the Connecticut State Medical Society.

Dr. B. P. Staats, S. T. Hubbard, H. T. Bulkley, Wm. N. Blakeman.

Delegates to New Jersey State Medical Society.

Drs. Samuel Hart, E. R. Squibb, Joseph C. Hutchinson, Andrew Otterson—same as last year.

Delegates to Massachussetts State Medical Society.

Drs. Joseph Bates, Samuel Shumway, Henry S. Downs, E. S. F. Arnold.

Delegates to New Hampshire Medical Society.

Drs. E. R. Peaslee, Henry C. Gray, Wm. N. Chamberlain.

Delegates to Vermont State Medical Society.

Drs. E. W. Howard, Hiram Corliss, Jos. C. Bates, D. P. Bissell, Arthur S. Wolf.

Delegates to Pennsylvania State Medical Society.

Drs. T. C. Finnell, H. Cresson Stiles, Caleb Greene, L. Gilson, A. Dayton, John G. Orton.

Delegates to Ohio State Medical Society.

Drs. H. H. Langworthy, J. T. Williams, C. C. Wyckoff, H. W. Dean.

Delegates to American Medical Association.

Drs. T. C. Brimsmade, H. W. Dean, A. L. Saunders, J. C. Hutchison, Edward Hall, James Ferguson, H. H. Langworthy, J. K. Chamberlayne, E. H. Parker, H. A Carrington, Harvey Jewett, S. Oakley Vanderpoel, John R. Van Kleek, D. P. Bissell, C. C. Wyckoff, Samuel G. Wolcott, James L. Banks, C. S. Wood, L. J. Tefft, Seth Shove, Caleb Greene, G. W. Bradford, F. Jacobs, G. J. Fisher, Wm. H. Bailey, Thomas Hun, C. M. Crandall.

Committee on Statistics.

First District, Dr. N. C. Husted; Second District, Dr. G. J. Fisher; Third District, Dr. T. C. Brinsmade; Fourth District, Dr. J. B. Reynolds; Fifth District, Dr. A. L. Saunders; Sixth District, Dr. J. G. Orton, Chairman; Seventh District, Dr. N. Nivison; Eighth District, Dr. J. R. Cotes.

Committee on Prize Essays.

Drs. E. H. Parker, E. R. Squibb, John Ordronaux.

Delegates to the International Congress at Paris.

Drs. Alden March, Alexander Thompson, Elisha Stains, James Ferguson, J. C. Dalton, Jos. C. Hutchinson, Thos. C. Brinsmade. Three vacancies.

Delegates to American Medical Association.

Drs. D. P. Bissell, C. S. Wood, H. W. Dean, G. W. Bradford, Thomas Hun.

Delegate to Maine Medical Society.

Dr. W. T. White.

Delegates to Rhode Island Society.

Dr. Hiram Corliss.

Committee on Publication.

Drs. Thomas Hun, Jacob S. Marion, and Wm. H. Bailey.

Dr. White moved that the paper presented by Dr. Davis yesterday be referred to the Publishing Committee. (Laid on the table.)

Dr. Brinsmade offered the following:

Resolved, That the Society deems the registration of births, marriages, and deaths, a subject of the highest importance, as a means of ascertaining the basis of mortality, the extent and prevalence of causes affecting human life, and as a basis for deduction in vital statistics; also, that a committee of three be appointed to present this subject to the Legislature, and to solicit the passage of a law for a thorough and efficient system of registration of births, marriages, and deaths, in this State.

Dr. Govan asked whether the delegation to the New Jersey State Society were expected to attend the adjourned meeting of that Society.

Dr. Squibb moved as an amendment to the report of the nominating committee, that the old delegation be continued in place of the present nominees.—Carried.

The report was accepted, and afterwards adopted as a whole, the President casting an affirmative ballot.

Dr. Bibbins said that the present law for the registration of births was valueless. Midwives, some of whom could neither read nor write, attended many cases, which were never reported, even in cases where a messenger was sent around to their houses. Medical students did not report to their professors; many persons were not attended by any professional persons; and some physicians did not wish these cases noticed, because it would show that they had a small practice.

A law should be passed that no person could inherit property unless his birth was duly registered.

Dr. Garrish also remarked upon the defects of the present law.

Dr. Williams, of Massachusetts, said that in that State they had a man appointed to take a census of births twice a year, going from house to house.

Dr. Brinsmade's resolution was then adopted, and the following committee appointed: Drs. Brinsmade, Lansing, and Mosier, to which Dr. Hough was subsequently added.

On motion, a vote of thanks was adopted to the Common Council for the gratuitous use of the Common Council Chamber during the session of the Society.

Dr. Harris moved that Dr. Hough be invited to cooperate with the Committee on Vital Statistics.

The following volunteer papers presented by persons neither permanent members nor delegates, were, on motion, returned to the authors without being read, on account of the number of papers from permanent members, delegates, and county societies, being so numerous and voluminous as to fill the entire time of the Society:

"Pulmonary Consumption and Electricity," by Dr. Louis Elsberg.

"Elastic Extension and its Applications," by Dr. H. G. Davis.

The Treasurer, Dr. Quackenbush, presented his report, which was accepted and adopted.

Dr. Brinsmade (with the statement that the course recommended was not intended to be retrospective), from the committee on Dr. Hyde's preamble and resolution, presented a report, concluding that it is obviously wrong for the medical profession proper to recognise in any manner the claims of homœopathy to their respect, or the confidence of the public; and any member of this Society, or any member of any society or medical organization which is entitled to representation in the American Medical Association, who recommends its practitioners, or who fails to protest against its adoption when his opinion is requested in any public hospital or dispensary, is guilty of error which is inexcusable, and of a violation, positive or negative, of the rules of medical ethics, which he is bound to observe.

The report was adopted.

Dr. Anderson's preamble and resolutions, the text of which is as follows, were then adopted.

Whereas, From the first moment of conception there is a living creature in process of development to full maturity.

Whereas, Any sufficient interruption in this living process always results in the destruction of life; and

Whereas, The intentional arrest of this living process, eventuating in the destruction of life, is consequently murder; therefore,

Resolved, That this Society do express their abhorrence and deprecate in a most emphatic manner the growing increase of that demoralizing aid given and practice rendered in procuring criminal or unnecessary abortion.

Resolved, That this Society will hail with gratitude and pleasure any measure or influence that will in part or in whole arrest this flagrant corruption of female morality, who are unquestionably the conservators of good morals.

Resolved, That the publication in newspapers and by secret circular, of ostensible remedies for female diseases that suggest abortion, is highly detrimental to the public health and morals, and that the Legislature ought, by the enactment of a suitable law, to forbid such publications.

Resolved, That a copy of these resolutions be transmitted to both branches of the Legislature now in session.

Dr. Anderson stated that the most pleasing part of the whole matter was, that the two last resolutions had been appended to the original, at the suggestion of a prominent senator.

Dr. Howard, delegate to the Vermont State Medical Society, reported that he attended the annual meeting of the Society last October, and was cordially received and politely entertained. Accepted.

Dr. Corliss, delegate to the Massachusetts and New Hampshire State Medical Societies, also presented a report, which was accepted.

Dr. Bissell moved that the Secretary of the Society be authorized to employ a competent phonographer to report the proceedings of the Society, including the discussions which may arise on all subjects presented for consideration, to the end that our profession may be justly appreciated, and the public correctly informed in respect to the aim and objects of this Society in its efforts to elevate, extend, and improve legitimate medicine.

After some discussion the resolution was adopted.

Dr. Bissell also moved that the Committee on Publication be requested to arrange the Transactions of the Society for publication in the following order:

First: The organization of the Society, the President's Inaugural Address, and a list of the members present.

Second: A clear and general abstract of its proceedings.

Third: The President's Annual Address, and all such papers presented to the Society as the Committee on Publications shall deem worthy of a place in our Transactions. Adopted.

Dr. Squibb read the following papers by title, which were then referred to the Publication Committee:

"Tenement-Houses, their Ground Area, Cubic Feet of Air Space, and Ventilation," by Dr. Wm. F. Thoms, N.Y.

"Report on Cholera and Cholera Ships," by Dr. John Swinburne.

"Prize Essay upon Vital Statistics," by Dr. Hough.

"On the Original Composition and Medical Uses of Saratoga Mineral Waters," by Dr. R. L. Allen, of Saratoga.

A motion was adopted that the several members present give a voluntary contribution for the purpose of replenishing the treasury.

Dr. Smith moved that each permanent member, on his election, beginning with those elected the present session, be requested to pay an initiation fee of $—— before entering upon his privileges as a member. Referred to Committee on Revision of By-Laws.

Dr. Anderson moved that each delegate from bodies within this State to this Society, be assessed two dollars on taking his seat as delegate. Referred to Committee on Revision of By-Laws.

On motion, Dr. Quackenbush was added to the Committee on Revision of By Laws.

A vote of thanks was tendered to the Business Committee, especially to Dr. Squibb, the Chairman, for the prompt and faithful manner in which they discharged their duty.

Dr. Harris exhibited for distribution to the members, a chart, showing the course of the epidemic in New York and its institutions, in 1866. This diagram gave by wave lines, the range of total mortality and the course of cholera, diarrhœa, cholera infantum, and the sum of zymotic deaths, week by week. He accompanied this with a printed circular, giving the synonymes of diseases in English, Latin, French, and German, the object of which was to insure accurate and comparative certificates of death; the whole was classified and arranged upon the basis recommended by the International Statistical Congress, for the purposes of Public Registration.

A vote of thanks was also tendered to the Presiding Officer for the able and impartial manner in which he discharged his duty.

The Society then adjourned, to meet Feb. 4, 1868.

The number of Deaf Mutes in France, according to a recent census, is 12,912.

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, M.D., EDITOR.

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New York, February 15, 1867.

THE PAST YEAR.

AT the close of the first year of the existence of the RECORD, a fitting opportunity is afforded us of taking a retrospective glance at the doings of the profession since the first number of the Journal was issued. Such a task has a particular reference to a review of the contents of the periodical during that time, and in just so far as it has performed its duty to its readers will this record be complete. Assuming then, as we think we have a right to do, that this journal has, as far as possible, chronicled faithfully, from time to time, the results of the labors of medical men in all the different departments, we take our table of contents as the foundation for our remarks.

Perhaps there has been no subject to which the attention of the profession has been more steadily and earnestly directed during the past twelve months than cholera. This was necessary, in view of an impending epidemic of that disease. The American physicians were not, however, the only ones who were anxiously expecting the scourge, for all over the civilized globe the same painful concern was manifested. As a consequence, the disease has been most carefully studied by the most earnest workers in our ranks, and many doubtful points connected with its history, mode of propagation, and treatment, have been settled. The thorough treatment of the quarantine question by the sanitarians on both sides of the Atlantic, not leaving out of consideration the conclusions of the National Sanitary Conference at Constantinople, leaves little else in the present state of our science to be said, *pro* or *con*. The value of the enforcement of strict sanitary regulations which were inaugurated in this country, and subjected to a practical test by the Metropolitan Board of Health, has been most triumphantly proved by a prompt eradication of the cholera in our own city. So conclusive has been the array of facts connected with the praiseworthy action of the Board, that other large cities are clamorously asking for a similar sanitary code. The pathology of cholera, too, is better understood than formerly, and the advances in therapeutical management have been more than proportional.

We have happily passed through the season with very little suffering. Although the disease for a time prevailed epidemically in some of our Western cities, it soon spent its force; a circumstance obviously due to the increased resources which science has placed at our disposal.

The cattle plague, which has raged so furiously in Great Britain, has spared us a visitation. We have, however, in anticipation of its coming, fortified ourselves with the opinions of those of our transatlantic brethren who have devoted themselves to its study.

The new remedial agents which have been advocated for the treatment of almost all of the catalogue of human ills, are too numerous to be individualized. They are, however, upon record, and must stand the test of practical utility. Many of these, contrary to our hope, will, doubtless, be found useless, and only tend to cumber our materia medica with worthless lumber. But this remark does not apply to all the agencies for cure, which have been presented to us durduring the time referred to. Among those most worthy of note in this connexion is that of local anæsthesia, first introduced by Dr. Richardson, of London. Its wide-spread applicability, and the fascination attending its novelty, have given it an immense and well deserved popularity. As an offshoot to this, the method of medication by the inhalation of vapors has received a new importance; and although much has to be done in this special department of therapeutics before anything conclusive can be arrived at, we have doubtless taken a step, which, if followed up, will lead to much amelioration of suffering.

The general knowledge which has been gained by the study of the recent epidemics of trichiniasis has enabled us to add another well-recognised disease to our already extensive list. The same may be said in reference to locomotor ataxy, to which the attention of the profession has been recently most particularly directed.

Thermometry, as applied to the diagnosis of disease, has by the investigations of the past year been placed upon a firm basis, and must soon be generally adopted by the practitioner as one of the readiest aids to the elucidation of doubtful diseases. Sphygmography, too, with the perfectly-working apparatus of Marey, has, by its magic tracings of the pulse-waves, urged its claim to distinguished consideration. In fact, the more extensive use of all the special instruments for the study and treatment of particular diseases has also received a new impulse. The stethoscope, speculum, and microscope, have intimately associated themselves with the ophthalmoscope, laryngoscope, rhinoscope, endoscope, and atomizer. Of the number of smaller instruments which have been devised, their name is almost legion, as our readers will be willing to admit by a glance at the department which we have specially set apart for their description. These inventions are, with one or two exceptions, purely domestic, and well sus-

tain the character of the American for ingenuity and fertility of resource.

The publication among us of medical works has been reasonably active; and not a few of our own countrymen have, during the year, creditably launched themselves into medical authorship. The appreciation of their exertions has not only been very gratifying to them, but has, in a measure, proved that native talent will be encouraged. Then again, the number of new medical works of all sorts that have met a ready sale, as well as the repeated calls for new editions of old ones, has afforded a gratifying indication of the increased tendencies to study and investigation among the class for which they are intended.

The usual meetings of the different associations in our large cities and towns have been regularly held, and each has vied with the other in the variety of interesting matter that has been discussed. The interest in medical societies has never been equalled, and there have been numerous instances where new ones have been formed. Even in our own city, already so richly endowed with these valuable means for self-improvement, two new ones have sprung up, which have already established for themselves enviable reputations—the *East River Medical* and the *New York Medical Journal* Associations. Medical "sociables" have also grown in favor, and in many quarters the desire to cultivate brotherly feeling and professional harmony is strikingly manifest. Even the stolid County Society has pleaded guilty in this respect, by assembling its members around a festive board.

In cursorily reviewing the labors of the profession during a period so limited, it is a source of gratification to be able to say, that every department has been enriched by new discoveries. Substantial progress has stamped an approval on the labors of the industrious, and medicine has steadily kept pace with its kindred sciences. Our means of diagnosis have been especially extended; and many of the traditional doubts that have clouded heretofore the perceptions of the practitioner, have been to a great extent cleared up. The question naturally arises here, Where, with a progress equal to that of last year, will we be at the end of the next twelve months? We are convinced what great things have been accomplished; we have only to labor more earnestly to satisfy ourselves as to what may not yet be done.

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A few words concerning the journal proper will not, we trust, be out of place at this time. We have the gratification of assuring our patrons that the Record is in every way a success. We are in no danger of shocking our modesty by such an assertion, as its claims for favor have rested upon that aid which its numerous friends, by their valuable contributions, kind suggestions, and judicious criticisms, have given it.

In its management it has been our aim to be strictly impartial, and every consideration has been second to that of ministering to the more pressing wants of the daily practitioner. If we have in any respect failed in this endeavor, it has been more an error of the head than of the heart. Our duties to our readers rendered it incumbent upon us to furnish the best available material, in the shape of contributions, from the most competent men. It is pleasant for us to think that in this regard at least we have discharged these obligations:—The subject of cholera has been worked up by Prof. Clark, and Prof. Van Buren has treated upon the genito-urinary system. The department of obstetrics has been represented by Professors Thomas, Elliot, and Byford; surgery by Dr. Buck and Professors Hamilton and Post; diseases of the chest, by Prof. Flint; the affections of the nervous system, by Brown-Séquard; the venereal diseases, by Dr. Bumstead; uterine surgery, by Dr. Emmet and Prof. H. R. Storer; the eye, by Drs. Agnew, Noyes, and Williams; the ear, by Dr. Roosa; hygiene, by Prof. C. A. Lee; chemistry, by Dr. Squibb; and laryngoscopy, by Dr. Cohen.

To our editorial staff we are under special obligations. The Societies of New York, which have been so faithfully and regularly reported, have been in charge of Dr. John Shrady, who, as senior associate editor, has done many other things to make the journal attractive and interesting, not the least of which has been his valuable and reliable accounts of the Progress of Cholera.

The substantial aid which Dr. B. St. John Roosa has given us in his many translations from the German exchanges, merits a more than ordinary acknowledgment. The same may be said concerning the letters from Philadelphia by Dr. Cohen, and from Chicago by Dr. H. M. Lyman, a reference to which has only to be made to have their reflective excellences remembered.

In conclusion, we beg leave to thank all others who have offered us their friendly assistance and counsel, and particularly our brethren of the Medical Press, not only in this country but abroad, for the very kind and handsome manner in which they have repeatedly referred to our undertaking.

The Report of the Proceedings of the Medical Society of the State of New York, which occupies so large a part of our space in the present number, will, we hope, be read with interest. Much important matter was brought before the Society; the debates, in general, were models of brevity and pith; the Committees performed the duties assigned them with promptitude; and we trust that we may not be deemed partial if we endorse the judgment of the representative from a sister Society, that it is a model association. We congratulate the Society on its happy choice of a President for the ensuing year. The efficient Secretary, Dr. Bailey, we are glad to learn, is still retained in office.

Reviews.

A Manual of Medical Jurisprudence. By Alfred Swaine Taylor, M.D., F.R.S., Fellow of the Royal College of Physicians, and Professor of Medical Jurisprudence and Chemistry in Guy's Hospital. Sixth American, from the eighth and revised London edition, with notes and references to American decisions, by Clement B. Penrose, of the Philadelphia bar. Philadelphia: H. C. Lea, 1866. 8vo. pp. 766.

The sixth edition of this popular work comes to us in charge of a new editor, Mr. Penrose, of the Philadelphia bar, who has done much to render it useful, not only to the medical practitioners of this country, but to those of his own profession. Wisely retaining the references of the former American editor, Dr. Hartshorne, he has added many valuable notes of his own. The reputation of Dr. Taylor's work is so well established, that it needs no recommendation. He is now the highest living authority on all matters connected with forensic medicine, and every successiv eedition of his valuable work gives fresh assurance to his many admirers, that he will continue to maintain his well earned position.

The present edition is somewhat enlarged by the consideration of some additional subjects; at the same time numerous well executed wood-cuts of the microscopical appearances of crystalline forms of poisons, as well as the apparatus used for their detection, are figured. The chapters on medical evidence are particularly noticeable features in the work, and should be carefully studied by every medical man.

Medical Jurisprudence is a subject which, to the shame of medical men be it said, has not received anything like its share of attention. This is in no small degree due to the supposition that they will never be called upon to put any knowledge which they have gained to the test. There is, however, hardly a physician or surgeon who can at any time be assured that he may not be summoned to discharge the very responsible duties of a medical witness, and everything then will depend upon his ability to acquit himself creditably or not. The duties of a medical jurist are so distinct from those of the ordinary practitioner, that a special training is absolutely necessary to discharge them satisfactorily, and this can only be obtained by carefully studying the application of every branch of medicine to that of law. The field is truly an extensive one, but it is the duty of every practitioner to cultivate it carefully, and thus strive to prevent those unfortunate exposures and mortifying blunders which have too long been reproachful reflections upon his profession. No one should, in fact, be without a text-book on the subject, as he does not know but that his next case may create for him an emergency for its use. To those who are not the fortunate possessors of a reliable, readable, interesting, and thoroughly practical work upon the subject, we would earnestly recommend this, as forming the best groundwork for all their future studies of the more elaborate treatises.

Clinical Lectures by Professor A. von Graefe, on Amblyopia and Amaurosis and the Extraction of Cataract. Translated from the German by Haskett Derby, M.D., Surgeon to the Massachusetts Charitable Eye and Ear Infirmary, etc., etc., Boston. David Clapp & Son, Printers. Pp. 86.

This pamphlet is a good translation of Professor Von Graefe's German from *Zehender's Monatsschrift*. It will be found interesting to the general practitioner as well as to the special ophthalmologist. The lectures on amblyopia and amaurosis contain much that requires careful thought in order to follow the author. The remarks on extraction of cataract are very practical, and written in a simple style. We hope the translator's object may be attained, and that *Albrecht von Graefe* may be herewith introduced to the American medical public as a clinical teacher; and that the progress which has been made (not in ophthalmic science in general, but in one of its most obscure departments), for which we are indebted to Professor Graefe's genius and industry, may be carefully noted. The pamphlet deserves a more permanent form and a consequent wider circulation than it now has.

A Handy Book of Ophthalmic Surgery, for the Use of Practitioners. By J. Z. Laurence, F.R.C.S., etc., and Robert C. Moon. With numerous Illustrations. Henry C. Lea, Philadelphia. 1866. Pp. 160.

Either life is growing much shorter and time much less, or medical book writers suppose so, for we are being inundated with "Handy Books," short roads to knowledge, medicine made easy, *et id genus omne*. One would think that doctors and medical students were men by whom thick octavos, not to say ponderous folios, were things to be avoided as rank intellectual poison. To tell the truth, we have no patience with the sort of stuffing which these handy books encourage. It is a superficial knowledge, at the best, which they impart, and apt to make conceited and ignorant practitioners. We have reason to know that Mr. Laurence and Mr. Moon are scientific and thorough practitioners, and that they could, if they chose, write a work better than Mackenzie and Lawrence, those books which are not *handy*, but which are instructive and exhaustive. They are, however, out of date, and this book is in, and is up to the present stand-point of ophthalmology. It is written in a clear, pleasant style, and we must recommend it above them. *But*, let us lengthen our medical curriculum, give more thorough instruction, and then we won't need such books as these, which almost cause us to say,

"If it was so soon done for,
What was it e'er begun for?"

The remarks on how to examine an eye, the objective and subjective methods, are really clear and excellent, as are the general remarks on ophthalmic operations immediately following.

It is the matter of diseases and their treatment, in which these handy books fail, in not being thorough enough, and this one among the rest. The practitioner who takes it up with the hope of getting a full knowledge of the present state of ophthalmic medicine and surgery, or of any given case, will be sorely disappointed. The references at the end of each section, to the authorities on the subject-matter, are valuable. To repeat, it is excellent of its kind; but we hope more thorough instruction in our colleges, and our eye hospitals, will make such books rarer.

The System of Wet-Nursing in France.—The Academy of Medicine of Paris is busy at the present time discussing this subject, and, from various sources, documents come in proving great neglect at the hands of the wet-nurses, and fearful mortality among the children. Remedies for this evil are proposed by various well-meaning persons; but no one speaks of the simple remedy of inducing mothers to give up the cruel custom (especially in large towns), of bundling off infants into the country when hardly born, and then forgetting everything about them. Why cannot French mothers nurse their offspring?—*London Lancet.*

Progress of Medical Science.

Treatment of Respiratory Diseases by Inhalation.—Dr. J. M. Da Costa, of Philadelphia, in an interesting monograph upon this subject, recently published, arrives at the following conclusions:—

That inhalations, by means of atomized fluids, are an unquestionable addition to our therapeutic means; but that they are nothing but an addition, and not a substitute for all other treatment. That in most acute diseases of the larynx, and still more so in acute disorders of the lungs, their value, save in so far as those of water, may tend to relieve the sense of distress, etc., and aid expectoration, is very doubtful; though in some acute affections, such as in œdema of the glottis and in croup, medicated inhalations have strong claims to consideration. That in certain chronic morbid states of the larynx, particularly those of a catarrhal kind, and in chronic bronchitis, they have proved themselves of great value. That in the earlier stages of phthisis, too, they may be of decided advantage; and that at any stage they may be a valuable aid in treating the symptoms of this malady. That their influence on such affections as hooping-cough and asthma is not satisfactorily proved. That they furnish a decided and unexpected augmentation of our resources in the treatment of pulmonary hæmorrhage. That they require care in their employ; and that in acute affections we should consider whether, as they have to be used frequently to be of service, the patient's strength justifies the disturbance or the annoyance their frequent use may give. That the question in any disease of the respiratory tract is not whether the atomized fluids can reach the seat of the malady, but whether they can do so in sufficient quantity, and in a manner to become available as a therapeutic means. That in estimating the action of inhalations of atomized fluids, we must accord due value to the ready absorption of many through the pulmonary structures, and guard against attributing to a local influence what may be due to the constitutional effect of the remedy. That in any case, to be of service, they ought to be carried on as a treatment with a distinct object, and not intermittingly or spasmodically resorted to.

Grindelia Robusta in Asthma.—Professor Henry Gibbons, Editor of the *Pacific Medical & Surgical Journal*, relates the case of a clergyman, for six years a victim of asthma in its most virulent form. After exhausting the ordinary round of remedies he tried, with the consent of his physician, a syrup of grindelia robusta, in the dose of a wine-glassful on going to bed. He slept soundly that night, and for seven months since beginning the use of the remedy passed not a single night out of bed. Hitherto he suffered most severely just prior to the rainy season, but this year he passed through that period with comparative comfort. The herb is described as abundant in California, mostly in hilly situations. It throws up a straight, unbranched stem, one or two feet in height, with short, rather rigid leaves, and a spherical head of flowers on the top. It belongs to the composite order of plants, the flowers having white rays about half an inch long. It may easily be known by a drop or two of a resinous fluid, which looks precisely like milk, and which is always to be seen attached to the calyx. In the mouth it yields a balsamic taste, and the odor is aromatic or balsamic. The syrup, made from a strong decoction of the herb, is not unpalatable, and sensibly acts only upon the pulmonary organs, promoting expectoration.

Effects of Potassium and Sodium Salts on the Animal Economy.—Dr. H. B. Jones, in the *Medical Times and Gazette*, says: "A muscle, by the application of potassium salts, may be rendered unexcitable to the stimulus of electricity, and it may be restored by treatment with sodium salts. A nerve, also, when treated with potassium salt, loses much quicker its power of exciting contractions in a muscle than when a similar nerve is treated with sodium salt. Even a nerve of sensation, as in a tooth, may lose its power when treated with potassium salt. So remarkable are the phenomena, that even a similarity has been stated to exist between the action of potassium salts and digitaline. Microscopic observation shows that chloride of potassium may affect the blood-globules, making them contracted and granular, while chloride of sodium has no action of this kind."

An Explanation of Chordee.—Dr. W. F. Munroe, in a communication to the *Boston Medical and Surgical Journal*, writes: "Chordee, perhaps the most painful complication of gonorrhœa, is explained by the majority of writers as a simple result of the lack of elasticity in the inflamed urethral membranes. This is a much more plausible explanation than that of muscular spasm, and is supported by a fact which I have never seen mentioned, but which first suggested itself to me in my own practice, and has been confirmed by further observation. It is this: that the less the difference in the size of the penis when in repose and when in erection, the less the danger of chordee. The fact is of value in prognosis, and, I have no doubt, has occurred to many others before me, but without getting into print."

An Improvement in Bleaching.—The process of bleaching has been greatly simplified by M.M. Fesse du Mothay and Rosseau, without being rendered less effective or less generally applicable. The article to be bleached is immersed in a solution of permanganate of soda, which has been rendered slightly acid, and is stirred about for a few minutes with a glass rod. It is then plunged into a solution of sulphurous acid, which removes the violet brown oxide of manganese deposited upon it in the first bath. After the successive immersions in the two fluids have been repeated two or three times, it is found to be beautifully white, without its fibres being the least impaired in strength. In this, as in all the processes which have been used for bleaching, oxygen is the agent which destroys the coloring matters; but is here employed in the form of ozone, which is disengaged from the permanganate by the organic matters.

Apiol in Amenorrhœa and Dysmenorrhœa.—According to Dr. Corlieu, the necessary conditions for the success of Apiol (the active principle of petroselinum sativum or common parsley) are, that "the pain which accompanies menstruation depends upon dysmenorrhœa, properly so called, that is, on the vaso-motor innervation of the womb. It has never succeeded in calming nervous pains, dull or acute, which were seated in branches of the lumbo-sacral nerves, and especially in the uterus, pains which appear to become exaggerated at the menstrual period, and may, at first sight, simulate dysmenorrhœa proper."

Other authorities insist upon the additional condition that the time for the administration of Apiol corresponds to a menstrual period, which, when erroneously calculated by the woman, may be fixed by the medical attendant by the presence of sympathetic derangements. The dose is, gutt. vij.—xv.

Iodide of Potassium in Erysipelas.—Dr. H. B. Withers, of Rantoul, Illinois, writes to the *Chicago*

Medical Journal, that he has used iodide of potassium in about thirty cases of erysipelas with perfect success, but does not endorse it as a specific. He gives usually ten grains every two hours, observing closely the effect; and claims to have arrested the disease in from twelve to thirty-six hours. As soon as the disease begins to subside, the medicine is discontinued. No external application is used, but the parts are simply kept covered and moist.

The Malformation of Teeth in Hereditary Syphilis.—"Professor Macnamara," according to the *Lancet*, "confirms from his Indian experience, the accuracy of Mr. Jonathan Hutchinson's admirable observations on the association of notched and pegtop forms of the upper central incisors, with interstital keratitis in cases of inherited syphilis."

A New Diagnostic Sign in Disease of the Kidneys.—According to M. Corlieu, the odor of cubebs, asparagus, etc., can be detected only in the urine secreted by healthy kidneys; and reasoning by exclusion maintains, that where this sign is absent the kidneys must necessarily be diseased.

The "White Streak" in Scarlet Fever.—In an Essay on Scarlatina, by Dr. Samuel J. Gee, published in Reynolds's *System of Medicine*, the above symptom is thus spoken of:

"When the nail is firmly drawn over the skin in which the rash is present (over the belly or thigh is best), a white streak soon follows, lasts a minute, and then disappears; a very firm stroke brings out a middle red mark, and two lateral white streaks. These phenomena have been thought to be pathognomonic. But are they really peculiar to scarlet fever? does the 'white streak' show more than that the skin is injected, whereby the effect of a contraction of the small vessels in the cutis is heightened, and of a dilatation obscured?"

Communicability of Cholera to Animals.—The *Journal d'Anatomie et de Physiologie*, edited by Robin, reports in its last issue for the year 1866 some interesting experiments on this subject. MM. Ch. Legros and E. Goujon, under the direction of Robin, at the Histological Laboratory of the School of Medicine at Paris, with the serum, the blood, and the dejections of cholera patients, succeeded in producing cholera in dogs and other animals. By injections into the veins, the trachea, and in a few cases by injections of considerable quantities of the liquid into the cellular tissue, all the symptoms of cholera were exhibited. The scene opened with vomiting, twenty minutes after the injection; then followed diarrhœa, and the expulsion of epithelial débris, cold extremities, labored and anxious respiration, suspension of the urinary secretion, and other symptoms. A phenomenon which they have never known to fail, and which did not depend on the quantity of liquid injected, was a series of efforts at deglutition at the moment the liquid mixed with the blood. If the dog was vigorous and the quantity of liquid injected diminished, he resisted the disease, warmed up, reactive fever set in, and there was a return to health.

At the commencement the urine was nearly always albuminous. If the dejections used were recent, clear, and without color; or if the serum used were from blood drawn during the algic period, the results were very marked. When the liquid was old and colored, symptoms of putrid infection were joined to those of cholera, or replaced them. The blood of cholera patients at the commencement of the disease, also produced marked symptoms when injected.

An apparatus containing ice and salt, for condensing the vapor of the air in the cholera wards in some of the Parisian hospitals, enabled the experimenters to procure a liquid which, when injected into the trachea of dogs, determined similar symptoms to those of cholera.

Injections of putrid substances failed to occasion such symptoms, though frequently causing diarrhœa and vomiting; but metastatic abscesses were found on post-mortem examination, which never occurred when the cholera liquids were used.

Injections of diastase, either pure or mixed with other substances, such as is obtained from crushed malt to which has been added its weight of warm water, produced symptoms of cholera as marked as when occasioned by the injections of the serum of cholera patients.

MM. Legros and Goujon conclude that cholera is a disease caused by a peculiar diastasic principle acting on the blood; and due to the presence in the air of substances containing this principle, which is absorbed by the lungs. That the presence of the diastase in the blood is a cause of the cholera symptoms. That injections into the veins or the trachea of animals, of a liquid obtained by condensation in the air of a cholera ward will cause symptoms of cholera. That inoculation of the serum or dejections of cholera patients does not produce characteristic symptoms of cholera. That injections of certain quantities of the dejections or serum of cholera patients into the veins or trachea of dogs will cause cholera symptoms, and that large quantities of these substances introduced into the stomach of dogs will produce the same symptoms.

That when the dejections are old or putrid they do not occasion cholera, but a putrid infection of the blood; that putrid substances injected into the blood tend to be eliminated by the intestine, producing diarrhœa, but not the symptoms peculiar to cholera.

That the injection of diastase will produce the same symptoms as the injection of cholera liquids.

That sporadic cholera is caused by the introduction with the food and drinks into the stomach, of a certain quantity of diastase (a warning to drinkers of lager and other malt liquors).

That to cure cholera, try to eliminate the diastase.

Milk in the Treatment of Disease.—Dr. Karell, physician to the Emperor of Russia, has recently, in a memoir read before the Society of Medicine at St. Petersburg, called attention to the very great advantages of milk as a therapeutic and nutritive agent in the treatment of disease. This substance, when pure, contains all the elements necessary to sustain life, and impart health and strength to the infant; and taken in such quantities as to supply the wants of the system, is an excellent food, upon which some populations live almost exclusively. This subject has often before attracted the attention of medical men, but to Dr. Karell and Dr. Inosemtzeff of Moscow, the latter of whom published a treatise on the Medicinal Use of Milk in 1857, is due the merit of subjecting this method of treatment to systematic and rigorously-defined rules. Dr. Karell, like the famous Venetian nobleman, Louis Carnaro, who lived to a very extreme old age, regards the indulgence in the pleasures of the table as one of the chief sources of mischief in the production of disease; and it is in diseases of the alimentary canal that he has found the milk treatment especially efficacious. Cruveilhier has used milk to advantage in the treatment of simple ulcer of the stomach; and it has long been esteemed by others as a nutritive cure. Any system which should restrict the indulgence of the palate, now that the culinary art has done so much to tempt and excite to excess the lovers of good cheer, would be a very unpopular one and meet with discouraging results, unless the

fears of the patient and the forcible and sensible expression of the physician's reasons should prevail in inducing him to adopt such a treatment as he recommends, and which he alleges to be very successful. He commences the use of milk alone, and forbids other food; gives it in moderate quantities and at regular intervals; commencing with from half a glass to a glassful three or four times a day. The temperature of the milk should be to the patient's taste, and skimmed of its cream. In chronic engorgements of the liver, in dropsies, asthma in consequence of emphysema and pulmonary catarrh, fatty degeneration of the liver, and generally in all diseases dependent upon a perverted nutrition, he recommends to commence the above course, and continue it as circumstances require. It may be necessary to give it at more frequent intervals and in spoonful doses, or in much larger quantities than a few glasses a day, never allowing the patient, however, to overload his stomach by taking too much at a time. He remarks that the greatest difficulty to be encountered is from the patient himself; that it requires faith and the exercise of a strong will to continue the treatment for the first week, which, if he succeeds in doing, he has very little trouble afterwards, as the good effects of the treatment encourage the patient to continue it. The objections of patients to commencing this treatment, Dr. K. observes, are many: Some imagine there is no longer hope, and that they have been abandoned to their fate; some who have given themselves an indigestion by drinking too much at a time, or not using it in small quantities and at rigorously observed intervals, say, they have tried it, and that it does not suit them; others fear that they will starve if restricted exclusively to this food, but he reminds them that the infant lives on nothing else, and that in sufficient quantities. it will nourish the adult. After continuing the exclusive milk treatment for several weeks, he gradually allows other articles of food. He states that in Russia intermittent fever has been successfully treated in this manner, and cites many other diseases cured by its use, and gives a number of illustrative cases to substantiate his statements; and shows that Niemeyer testifies his praise of this treatment.

Should the Emperor of Russia be subjected to the milk treatment, we hope that he will take as kindly to it as Frederick the Great did to the juice of dandelion, but exhibit more patience and control over himself in avoiding excesses of the table, than Zimmermann could prevail on his royal sufferer to observe.

New Instruments.

THE SPHYGMOGRAPH.

Of the number of new instruments which have lately been applied to the investigation of disease, the sphygmograph is not the least important. Our readers will recollect that some time ago we referred to this ingenious contrivance of M. Marey, and to its application in correctly recording the pulse waves.

In view of its prospective importance as an instrument, and the extended range of its applicability, we have determined to reproduce an excellent illustration of it, which the *Dublin Quarterly Journal of Medical Sciences* copies from a work just published by Dr. B. W. Foster. The description of the author is so complete, that we quote it in full:

"The sphygmograph of Marey affords us the necessary aid; and by it we can not only gain a knowledge of the finer differences which escape our touch, but also preserve for inspection a distinct trace of those delicate peculiarities. The accompanying woodcut (Fig. 1), copied from Marey, shows us in the interior of the frame (Q R) the essential part of the instrument, which consists of a flexible steel spring (I), covered on its under surface, at its free extremity, with a convex plate of ivory (K). This ivory plate rests upon the artery to

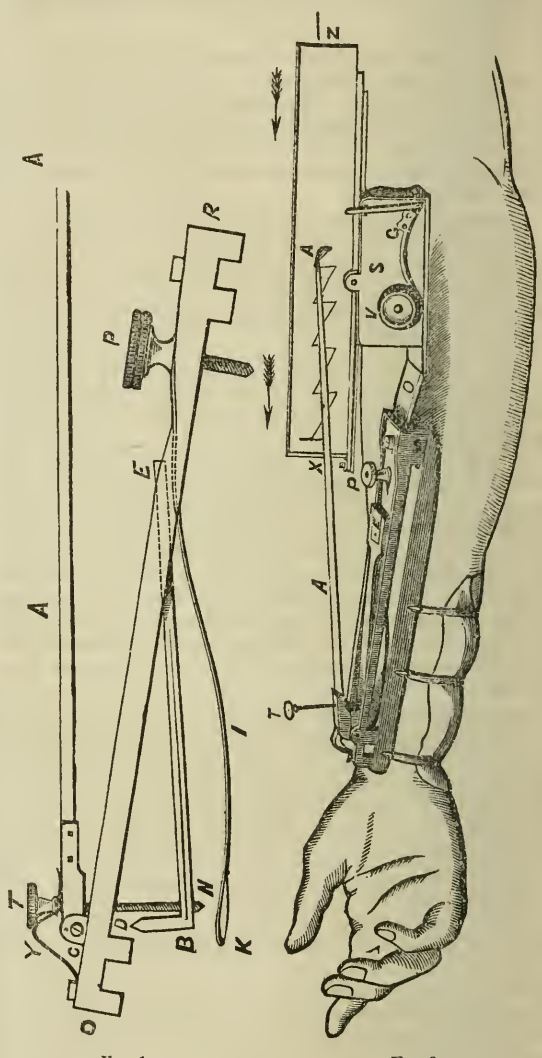

Fig. 1. Fig. 2.

be examined, and, by virtue of the elasticity of the spring (I), exerts a certain pressure upon it. Each pulsation of the vessel raises the spring slightly at K, and the multiplication of this movement is obtained by means of a very light lever (A), which moves upon a pivot (C). The elevation of the spring is transmitted to the lever, very near to its centre of movement, by means of a bar of metal (B E), which moves round the point (E); this bar terminates in a vertical plate (B D), and is pierced by a screw (T). When the screw acts upon the spring, the connexion is established between the spring and the bar, and the movements of the spring are transmitted to the bar, and through its vertical plate to the lever. In order to insure the transmission of the movement, the plate (B D) must be in contact with the under surface of the lever; by means of the

screw (T) we can arrange this, and regulate the interval between the point of the plate (B D) and the under surface of the lever. In order that the lever should not be projected too much upwards by sudden movement, and also that it should overcome any slight friction experienced in the paper at its terminal point (A), a small spring (Y) rests upon its fixed extremity, and presides over its descent. The screw (P) enables us to regulate the amount of pressure exercised upon the artery by the spring (I). The wood-cut (Fig. 2), modified from Marey, shows the instrument placed upon the arm over the radial artery in the position for use. The lever (A) is here seen to carry at its free extremity a little pen, which, filled with ink, registers its movements upon the paper which covers the plate (X Z); this plate is moved at a uniform rate in the direction indicated by the arrows, by means of watch-work placed beneath in the case (S). Ten seconds are occupied by the passage of the plate. The button (V) enables us to wind up the watch-work; and the small regulator (G) starts the plate, or stops its motion as desired. The application of the instrument I have found much facilitated by the use of elastic bands, instead of a silk lace, as recommended by Marey. These bands embrace the arm, and are hooked on to the small projecting points on the metal framework, as seen in the diagram. The addition of a pad to the under surface of the arm renders the instrument more easy to the patient, and prevents any pressure from the bands."

The tracing consists of as many curves, each of a line of ascent, summit, and descent, as there are pulsations during ten seconds, corresponding "respectively to the flow of blood after the contraction of the ventricle, the arrival of blood in the artery, and the subsidence of the pressure on the vessel."

The same journal, speaking of its uses, says:

"Among the morbid conditions, therefore, which will be in future more easily discovered with the aid of this instrument, are the diminished elasticity of arteries which occurs with senile degeneration, aneurisms on the vessels nearer to the centre of the circulation, and aortic patency; and, without doubt, as the instrument comes into extensive use, so many observations will be recorded, that valuable information will be afforded in the diagnosis of all diseases in which examination of the pulse by the finger has hitherto been relied on."

Correspondence.

DEVELOPMENT OF CERVIX UTERI.

To the Editor of the Medical Record.

Dear Sir—My attention has been called to a passage in my lecture on Unavoidable Hæmorrhage, published very recently in your journal, which makes me appear as claiming priority of Prof. Isaac E. Taylor, with reference to his views concerning the development of the cervix uteri during pregnancy. The passage alluded to is loosely worded, and well calculated to leave such an impression; and I hasten to say that I had neither the right nor desire to make such a claim. Dr. Taylor had investigated the subject long before I did so, and I intended only to intimate that before the publication of his paper I had made some isolated observations corroborative of the truth of the position which he has proved to be correct.

Respectfully yours,
T. G. Thomas, M.D.

86 Fifth Avenue, N. Y.

NITRATE OF POTASH IN SYCOSIS MENTI.

To the Editor of the Medical Record.

Sir—In the January number of the Record, 1867, a writer confirms the utility of sulphite of soda in sycosis menti according to the formula of Dr. Dale, as published in the *American Journal of the Medical Sciences*, by the report of a single case. Not having tried the remedy, I am not prepared either to approve or condemn it in this disease. My object is rather to put forth the claims of another article, which, though I do not remember to have seen recommended in this complaint by any author, in other cases certainly cannot claim to be a new one, and on that account, by some, may be in danger of being overlooked. I refer to the nitrate of potash, which has cured all cases of sycosis that have lately fallen under my observation, more quickly and more surely than any other remedy, indeed than all others, that I have seen used. A very few days have sufficed to cure bad cases that had resisted other forms of treatment for weeks.

The form in which I use it, is that of a saturated solution in water, applied freely to the pustules three or four times a day. In some cases, a solution of this strength will cause too much smarting, when, of course, it should be reduced to the point of comfortable toleration by the patient.

P. Stewart, M.D.

Peekskill, N. Y.

THE CASE OF SELF-AMPUTATION OF LEG.

[To the Editor of the Medical Record.]

Sir—You have recently announced the death, at San Francisco, of "Peg Leg" Smith, a noted trapper, who derived his sobriquet from the fact that in 1827 "he amputated his own leg," which had been shattered in a skirmish with the Indians, on account of threatening mortification.

The above announcement contains two important errors; and I have thought that a correct version of this unique case would be interesting, not only because it ranks among the most "remarkable cases in surgery," but also illustrates the crude expedients that may be resorted to in an emergency to save a valuable life.

I saw Mr. Smith several years after the amputation, mounted on horseback, and received from Robert Carson (brother of the celebrated "Kit Carson"), who assisted at the operation, the following account of it:

The leg (or thigh) was shattered in a fight with the Indians. Profuse hæmorrhage occurred, which was arrested for the time being by pressure above the wound; but as the party knew nothing of the method of arresting hæmorrhage by the ligature, they determined to resort to amputation, and sear the end of the stump. The operation was done by a fellow-trapper, Mr. Sublette, of St. Louis, not by the patient himself. The instruments used were a butcher-knife, an iron linchpin, and a hatchet. An incision was made through the soft parts of the thigh, down to the femur, with the butcher-knife; the edge of the knife was then hacked with the hatchet so as to convert it into a rude saw, with which the bone was cut through. A linchpin from one of their wagons was heated to a red heat, and the end of the stump seared, to prevent hæmorrhage.

It is probable that death of the end of the bone subsequently took place, and it was thrown off from the living part. At any rate Mr. Smith had a useful stump, which did him good service for nearly forty years.

Yours respectfully,
Joseph C. Hutchison, M.D.

Brooklyn, N. Y., Jan. 8, 1866.

Obituary.

CHARLES COOK, M.D.,

JERSEY CITY, N. J.

At a meeting of the Hudson County Medical Society, held in Jersey City, on the 20th ult., the following preamble and resolutions were adopted:

Whereas, The Allwise Disposer of events has, in His infinite wisdom, removed from our midst our highly esteemed brother, Dr. Charles Cook; therefore, be it

Resolved, That in his death we recognise the hand of God, and bow in humble submission to His will.

Resolved, That this mournful event has deprived us of one whose long and intimate association, and honorable and generous character, had won our esteem and affection, and that while we mourn our loss, we will ever cherish his memory.

Resolved, That we tender to the family of the deceased, our warmest sympathy in their hour of bitter trial.

Resolved, That a copy of these resolutions be presented to the family, and that they be published in the *Medical and Surgical Reporter*, the New York MEDICAL RECORD, and the Jersey City papers.

Resolved, That we attend the funeral in a body.

J. H. VONDY, M.D.,
THEODORE F. MORRIS, M.D.,
JAMES WILKINSON, M.D.,
Committee.

New Publications.

BOOKS AND PAMPHLETS RECEIVED.

THE INDIGESTIONS, OR DISEASES OF THE DIGESTIVE ORGANS FUNCTIONALLY TREATED. By THOMAS KING CHAMBERS, Honorary Physician to H.R H. Prince of Wales, etc., etc. London. John Churchill & Sons. 1867.

RENEWAL OF LIFE. Lectures chiefly Clinical. By THOMAS KING CHAMBERS, M.D., Honorary Physician to H.R.H. Prince of Wales, etc., etc. 2d Amer. 4th London edition. Philadelphia. Lindsay & Blakiston. 1866.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.—Vol. 17. 1866.

THE PHYSICIAN'S POCKET RECORD for Thirty-five Patients. by S. W. BUTLER, M.D., Editor Philadelphia Medical and Surgical Reporter. Phila.

TREATMENT OF LOWER JAW. By THOMAS BRIAN GUNNING. New York.

TRANSACTIONS OF NEW HAMPSHIRE MEDICAL SOCIETY. 1866.

METHOMANIA. A Treatise on Alcohol Poisoning. By ALBERT DAY, M.D., Superintendent and Physician of the Washington Home, Boston, with an Appeudix by H. R. STORER, M.D., Boston. J. CAMPBELL 1867.

ANNUAL ANNOUNCEMENT OF LECTURES. Atlanta Medical College, Ga. 1866.

REDUCTION OF INVERTED UTERI BY A NEW METHOD. By THOMAS ADDIS EMMET, M.D., Surgeon-in-charge, N. Y. State Woman's Hospital.

THE FUNCTIONS AND DISORDERS OF THE REPRODUCTIVE ORGANS, in Childhood, Adult Age, and Advanced Life. By WILLIAM ACTON, M.R.C.S., etc. 2d Amer. from 4th London edition. Philadelphia. Lindsay & Blakiston. 1867.

INDIA-RUBBER VARNISH IN SMALL-POX.—The small-pox patients in a London infirmary, just after the full development of the eruption, have had their faces painted with a solution of india-rubber and chloroform. This method of treatment is said to prevent the almost intolerable itching, as well as the unsightly cicatrices.

Medical News and Items.

PERSONAL.

DR. J. RUFUS TYSON, Assistant Chief of the Bureau of Medicine and Surgery, has been promoted to the grade of Passed Assistant Surgeon of the U. S. Navy.

M. JOBERT DE LAMBALLE, according to the latest dates, was still in an insane asylum, but his condition had somewhat improved.

DR. BROWN-SÉQUARD, according to the *Boston Medical & Surgical Journal*, has decided to give up altogether the practice of medicine.

HARVARD MEDICAL SCHOOL.—Although the medical journals report the number of medical students at Philadelphia and New York as being below the average at the present time, the number in Boston was never so large, three hundred and three having registered their names.—*Boston Medical & Surgical Journal.*

HYPODERMISM AND TOXICOLOGY.—It seems that hypodermic injections may be put to a bad use, in consequence of the difficulty in detecting poisons thus introduced. The alkaloids are said almost entirely to escape detection. One may readily conceive the impossibility of testing the presence of half a grain of strychnia, atropia, or aconita, diffused through the entire circulation.—*Pacif. Med. & Surg. Journal.*

CARE IN PRESCRIPTIONS.—A physician in a neighboring city, in writing for McMunn's Elixir of Opium, abbreviated the word elixir, as he claims, "exl.," but the apothecary read it "ext," and so compounded it. The dose prescribed, one tablespoonful, was administered with a fatal effect to the patient, a child, who took at least seven grains of opium instead of less than half a grain.

THE PARIS FACULTY OF MEDICINE, as now constituted, consists of the following temporary staff of professors:—Gavarret, Medical Physics; Racle (substitute for Andral), Pathology and General Therapeutics; Jarjavy, Anatomy; Wurtz, Medical Chemistry; Denonvilliers, Operations and Apparatus; Monneret, Medical Pathology; Richet, Surgical Pathology; Robin, Histology; Bouillaud, Bucquoy (substitute for Guillot), and Fournier (substitute for Grisolle), Clinical Medicine; Houel (substitute for Jobert), Laugier, Velpeau, and Nélaton, Clinical Surgery; and Depaul, Clinical Midwifery.

The Minister of Public Instruction has announced his intention of immediately filling the vacant chairs, and requests all candidates to send in a statement of their claims and qualifications. Some of the French Journals recommend the reëstablishment of the *concours*, of which M. Guérin says, "it is not fitted either to render justice or to lead to the discovery of truth in the regions of elevated science; it is a means, rather, for bringing into prominence merits of a secondary order—information, memory, and the talent for exposition; but it excludes all superiority and originality."—*Boston Medical and Surgical Journal.*

MORTALITY IN PROVIDENCE.—According to the recent annual report of Dr. Edwin M. Snow, Superintendent of Health and City Registrar, there were in Providence, R. I., during 1864, 1,281 deaths out of a population of 53,810, or one death in 42.01; during 1865, 1,211 out of 54,595, or one in 45.08; and during 1866, 1,036 out of 5,600, or one in 54.05. The deaths last year from Cholera Asiatica, in the above-mentioned city, are set down as only fourteen.

The Artificial Propagation of Fish.—This is a subject which is attracting attention in Canada no less than in many other parts of the world at the present time. Notices have occasionally appeared in our columns of efforts made in different parts of the Province to promote the artificial propagation of fish, and we now find in the *Globe* an account of the experiments of Mr. S. Wilmot, of Newcastle, Canada West. This gentleman, it appears, has given much attention to the subject, and has met with very encouraging success. Mr. Wilmot obtained permission to capture the salmon in the fall of the year, when they are out of season, and took some of the fish in a small stream in the township of Clark, known as Wilmot's creek, which empties into Lake Ontario. The ova of four female salmon were successfully hatched, and from these between 20,000 and 30,000 young salmon were obtained, being kept in small boxes in Mr. Wilmot's house. The feasibility of propagating salmon a thousand miles inland from the sea being established by these experiments, Mr. Wilmot believes the means are within our reach of replenishing our lakes and rivers to almost any extent. It is estimated that if the ova of one salmon were hatched, the progeny would equal the whole number of salmon in the river Tay, in Scotland. In the natural process of propagation, however, not more than one in 5,000 ova are hatched or come to maturity. But by the artificial method, nearly all the ova can be brought to perfection, and the marvellous prolific capacity of the fish thus be turned to good account. The subject is a very important one, and will, no doubt, attract the attention of the government.—*Montreal Herald.*

The Cholera in Europe.—The Registrar-General of England, in a supplement to a late report, has published a series of authentic official returns, recording some valuable information relating to this plague of the nineteenth century in the cities and towns of Europe. The French returns show that in Paris the epidemic in 1865 reached its maximum in October, in which month 4,653 deaths were recorded. In the first six months of the present year only 69 deaths occurred, but in July, the last month for which returns have been published, the deaths suddenly rose to 1,743. The proportional number of deaths by cholera, to every 10,000 of the population of Paris, in 1865, was 39; in the first seven months of 1866, it was 11.

In London, the deaths by cholera in the present year were in the proportion of 18; in Liverpool, of 36 to 10,000 living. In Italy the epidemic began on the 25th of June, 1865, in the province of Turin, and destroyed 42,991 lives during that year, or to every 10,000 of the population living in the thirty-five provinces and the three hundred and ten communes that were attacked by cholera, 31 deaths occurred. It appears that in Italy the town population has suffered less severely than that of the country, the number of deaths to 10,000 living being 38 in the former and 50 in the latter case. In Naples, 2,301 deaths are recorded in 1865 out of 446,931 inhabitants, being in the proportion of 52 deaths by cholera to 10,000 living. In Vienna the returns date from the 11th of August to the 10th of November, 1866—the ratio was 51.

In seven Belgian towns, comprising Antwerp, Brussels, Bruge, Ghent, Mons, Liege, and Namur, no less than 11,771 deaths occurred from May 1 to October 15 of the present year, out of a population of 553,377, or the deaths by cholera were in the proportion of 186 to 10,000 living. In Brussels the proportion was 164. In Holland, 11,547 deaths occurred in 1866. Taking fifteen Dutch cities and towns, including Amsterdam, it appears that 8,872 deaths by cholera were recorded in the five months from June to October of the present year, being in the proportion of 107 deaths to 10,000 living. In Amsterdam, the ratio was 42, while in Utrecht it was 271. Norway, it appears, has suffered but slightly from the epidemic in 1866; only 48 deaths are recorded out of a population of 1,701,478.

Medical Education in Great Britain.—According to a recent enactment in Great Britain, no medical student can be admitted to lectures until after a successful examination in the higher branches of an English education, with mathematics and Latin; nor can he be examined for his final degree until after attendance upon four winter sessions of lectures, or three winter and two summer sessions, including in each session all the branches of medicine, with physics, botany, and general history.

The Mexican State Examination of Physicians.—We received the following from a German physician, who lately passed a medical examination in Mexico, which was necessary in order that he might practise as a civil physician, although he was already a graduate in Germany, and has served in the auxiliary corps in Mexico as a surgeon:

"The examination, if not so difficult and complicated as in Germany, for which about 150 pesos had to be paid, was an earnest and scientific one. The examiners were accomplished physicians, even in the latest researches. The examination lasted four days. On the first day, an oral examination, two hours in length, on various subjects was made, *e.g.* on chloroform, tracheotomy. On the second day, an essay in the Spanish language was required on the diagnostic and prognostic importance of hæmaturia. On the third day, there was a practical examination of eight patients in the hospital. On the fourth day, the examination was ended by an oral examination of four hours' length in special pathology and therapeutics, medical jurisprudence (especially on the appearances in sudden death), on obstetrics, chemistry, pharmacy, and materia medica. The examiner in the latter branches was a very accomplished apothecary, who had studied in England and France."

We see that, in the midst of their precarious condition, the people take hold of the matter earnestly and thoroughly.—*Deutsche Klinik.*

Chronic Pharyngitis.—Dr. J. R. Black (*Cincinnati Lancet & Observer*), for the treatment of chronic Pharyngitis recommends the following:—℞ Tinct. iodine, inod. Glycerine, aa ʒ ss., Bals. fir. ʒ jss. Apply to the irritated or ulcerated parts, once daily, with a camel's-hair brush. This preparation diffuses itself rapidly over the fauces, soothing the irritation, and clearing the throat by free expectoration. When the inflammation has extended into the nasal cavity, the most convenient and practical mode of reaching it with the medicine is by insufflation. Pour half a teaspoonful into the palm of the hand, or on a bit of sized paper, apply closely to the nostril, close the opposite one with the finger, and give a forcible inspiration. In case the disease has extended into the larynx and become chronic, the tincture of iodine mixed with spirits of ether comp., and used by inhaling the vapor, gives very gratifying results. A very good inhaler can be extemporized from a quinine bottle. Fit two good quills into a tight cork, one end of one extending an inch or two into the liquid. To the superior end of the one not dipping the liquid, attach a gum elastic bougie, with a mouth-piece. This may be used once or twice daily.

Status of the U. S. Army, Medical Department.—The subjoined we quote from the report of the Secretary of War, Washington, Nov. 14, 1866.

"Arrangements will soon be consummated by the Medical Department for the permanent security of its valuable mortuary records, including 16,000 folio volumes of hospital registers, 47,000 burial records, 16,000 muster and pay rolls, alphabetical registers of the dead, containing 250,000 names of white and 20,000 of colored soldiers, and the pathological collection constituting the army medical museum. During the year official evidence, obtainable from no other source, of cause of death or of discharge for disability, has been furnished in 49,212 cases, and 210,027 discharges upon certificate of disability have been examined and classified. The total number of surgical cases classified and recorded is, of wounds 133,952, and of operations 28,438. The preparation for publication of the medical and surgical history of the war has been prosecuted with energy, much of the manuscript and several of the illustrations for the first volume being completed. The army medical museum continues to increase in value and usefulness, and the greater security and additional accommodations of the building to which it will shortly be removed, admit of the addition of a great number of interesting and instructive specimens not hitherto available for want of space. A small appropriation will be required to continue the work of classification and preservation of this national collection. The number of casualties from the commencement of the war to the present time, in the regular and volunteer medical staff, is ascertained to be three hundred and thirty-six, including twenty-nine killed in battle, twelve killed by accident, ten died of wounds, four died in rebel prison, seven died of yellow fever, three died of cholera, two hundred and seventy died of other diseases. During the war thirty-five medical officers were wounded in battle. The distribution of troops in small bodies over so large an extent of country necessitates the employment of acting assistant surgeons temporarily, but the number of these has been reduced from 1,997 on July 1, 1865, to two hundred and sixty-four on July 1, 1866, and will still further be diminished when existing vacancies in the grade of assistant surgeon, created by the act of Congress of July 28, 1866, are filled; a corresponding decrease in the number of hospital stewards for general service has also been effected; and in every branch of the department reduction and retrenchment have been rigidly enforced. An aggregate expenditure of $267,391 was incurred by the Medical Department in furnishing officers and supplies to the Bureau of Refugees, Freedmen, and Abandoned Lands, which had under its control during the fiscal year ending July 1, 1866, no appropriation applicable to the purpose; and though, under a decision of the Treasury Department, reimbursement was not made from subsequent appropriations for the Freedmen's Bureau, no embarrassment arose and no legislation is required. The funds at the disposal of the Medical and Hospital Department, during the year ending June 30, 1866, were as follows:

Balance of appropriations remaining in the treasury, July 1, 1865.	$1,161,181
Amount of Treasury draft No. 1,544, on war warrant 3,205, issued May 3, 1865, in favor of Assistant Surgeon J. B. Brinton, lost in the mail and subsequently refunded.	10,000
Proceeds of sales of old or surplus medical and hospital property.	4,644,261
Amount refunded on account of supplies furnished for the use of prisoners of war.	22,163
Amount refunded by the Subsistence Department, being apportionment of amount paid for board and care of sick soldiers in hospitals.	121,600
Amount received for board of officers in hospitals.	14,298
Amount recovered on account of stores and furniture lost or damaged in transportation.	4,597
Refunded from appropriation for care of destitute discharged soldiers, being for board of discharged soldiers, while having artificial limbs fitted.	6,955
Received from all other sources.	1,005
Total.	$5,386,064
Of this amount there was disbursed during the same period—	
For medical and hospital supplies (a great part of this sum expended in payment of debt of previous year)	965,783
For pay of private physicians.	926,584
For pay of nurses and other hospital employés.	309,916
For purchase of artificial limbs for disabled soldiers.	198,999
For board of sick soldiers in private hospitals.	58,781
For expenses of hospitals for officers.	23,158
For expenses of purveying depôts, laboratories, repairs, etc.	312,243
For miscellaneous expenses of the Medical Department.	32,345
Total disbursements during the fiscal year.	$2,837,801
Balance in Treasury, June 30, 1866.	2,546,457
Refunded of amount advanced by disbursing officers during the previous year.	1,805
Total.	$5,386,064

The estimated appropriation required for the Medical Department for the next fiscal year is $90,000.

Pharyngeal Catarrh.—Powders blown in upon the parts are better than gargles, inhalations, or similar applications. The nitrate of silver, in proportion of 1-3 or 1-4 with *magnesia silicosa*, is the best application. Whether this method would apply to the idiopathic affections with constitutional syphilis or struma, the speaker (Dr. Mosetig) did not know.

Dr. Joseph Gruber thought that the glandular enlargements arose mostly from a scrofulous dyscrasia, and that the local treatment was not sufficient. As an aural surgeon, he saw numerous cases of pharyngeal catarrh. Nearly a third of ear affections depend on catarrh of the Eustachian tube. The use of powders in such cases is not new. He had also had good results with injections.

Dr. Mosetig replied that he did not deny the existence of a scrofulous glandular inflammation; he had only spoken of the great room for local treatment in the cases in which they were sympathetically swollen.—*Session of the K. K. Gesellschaft der Aerzte* (Imperial Royal Society of Physicians), *Vienna, November* 23, 1866.

The whole number of students at the University of Göttingen is 757, of whom 189 are students of medicine. There are nine Americans at the University.

The Last Volume of the Transactions of the American Medical Association.—Those physicians who paid for the last volume of the Transactions of the Medical Association, can have their copies by calling on, or sending to, Dr. Bulkley, 42 East Twenty-second street; and those wishing this volume, who were not at that meeting in Baltimore, will be supplied by Dr. B., on the payment of Five Dollars.

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Pennsylvania Hospital, Philadelphia.
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CONTENTS OF VOLUME I.

A.

Abortion, frequency of, 240.
Acheson, Dr. J. J., contagiousness of cholera, 324.
Acids, tests for, 474.
Acne, treatment of, 21.
Acupressure needle, use of, 188.
Æsthesiometers, 510.
Agnew, Dr. C. R., removal of foreign particles from cornea, 251; exfoliation of external ear, etc., 338.
Albuminuria without convulsions, 377.
Alcohol, consumption of, in France, 327.
Alumni Association, College of Physicians and Surgeons, 71, 174; catalogue of, 87.
Amabile, Dr. D., meningeal apoplexy, 106.
American Medical Association, 85; meeting of, 137, 138; prizes of, 70; review of transactions of, 336.
American Ophthalmological Society, meeting of the, 214.
Ammonia, muriate of, 531.
Ammonium, bromide, value of, 227, 377.
Amputations, lectures on, 327, 397; case of spontaneous in utero, 27; self, of leg, 581.
Anæsthesia, local, remarks on, 112, 192, 277, 283, 294.
Anæsthetic, an agreeable, 22.
Anderson, Dr. James H., cholera-infantum, 313; notice of death of, 390, 409.
Aneurism, popliteal, by compression, 16, 450; of aorta, 32, 553.
Anstie, Dr. F. E., review of work by, 65.
Anthrax, treatment of, 404.
Ano, new treatment for fistula in, 345.
Aphonia, cure of, 178, 331.
Apoplexy, meningeal, case of, 106.
Appointments, 24, 47, 71, 96.
Arm presentation, replacement of by new method, 293.
Armsby, Dr. J. H., congenital hernia, 80.
Army, medical, staff of, 48, 72; new bill of medical staff of, 296; services of surgeons of the, 28.
Arsenic in hæmorrhoids, 112, 451.
Arteritis, case of, 504.
Arthritis of elbow, 19.
Asthma, new treatment of, 293, 578.
Asylum, Vermont, for Insane, 560.
Atkins, Dr. F. H., report by, 18.
Atlee, Dr. J. L., on cholera, 143.
Aural clinics in colleges, 15.
Aural surgery, present position of, 554.
Auscultation, review of work on, 456.
Autobiography, medical remarks on, 311, 536.
Autopsies, how to make them odious, 368.

B.

Balsam Peru in itch, 36.
Barker, Dr. B. Fordyce, chronic metritis, 482.
Barker, Dr. Geo. T., review of work by, 336.
Batchelder, Dr. J. P., review of work by, 334.
Beard, Dr. G. M., on electricity, 465, 514.
Bell, Dr. A. N., steam as a disinfectant, 257.
Bellevue Hospital reports, 19, 58, 106, 239, 281, 546.
Bennett, Dr. E. P., vesico-vaginal fistula, 53.
Bladder, rupture of the, 102; gunshot wound of, 185; extrophy of, 236.
Blood, relative temperature of arterial and venous, 21.
Bone, abscess of, 92; regeneration of, 331.
Boudon, a new poison, 548.
Bozeman, Dr. N., on ovariotomy, 297.
Bradley, Dr. E., hypospadias, 92.
Brain, abscess of, 61; softening of, from thrombus, 18.
Brainard, Dr., death of, 413.
Bright's disease, remarks on, 91, 262, 308.
Bronchitis, inhalation of ether in, 451.
Bronchocele, removal of, 441.
Brooklyn City Hospital Reports, 17, 18.
Brown, Dr. Harvey E., aphasia, 153; cholera campaign, 195.
Brown-Séquard, Dr. C. E., functional and organic affections of nervous system, 225.
Brownell, Dr. R. B., treatment of fistula in ano, 345.
Buck, Dr. Gurdon, acupuncture needle, use of, 188; cases of cheiloplasty, 3, 185, 433; aneurism, 553.
Bulkley, Dr. Henry D., purpura hæmorrhagica, 160; hypodermic injection of quinine, 434, 489.
Bullet, a new probe for extraction of, 475.
Bumstead, Dr. Freeman J., remarks on venereal diseases, 25, 98.
Burrall, Dr. W. F., review of work by, 111.
Burns, treatment of, 370.
Buttles, Dr. M. S., inhaler of, 44.
Byford, Dr. W. H., lectures on puerperal convulsions, 499, 520.

C.

Calculus, urinary, case of, 183.
Calhoun, Dr. J. T., notice of death of, 317.
Cancer, citric acid in, 112; of mamma, 457; of rectum, 22; of testicle, 337, 456.
Cancrum oris, case of, 18, 433.
Canniff, Dr. W., review of work by, 311.
Capsicum in delirium tremens, 260.
Carbon, bichloride, anæsthetic properties of, 93.
Carbonic acid, remarkable instance of poisoning by, 94.
Caswell, Dr. E. T., osteo-myelitis, 351.
Cataract, operation for, 259, 339, 365.
Catheter for ether spray, 460.
Caustic probe, the spring, 23.
Cerebral abscess, remarkable case of, 523.
Certificates, medical, value of, 501.
Chamberlain, Dr. W. H., absence of uterus, 160.
Chancre, multiple, remarks on, 401.
Chapman, Dr. J., review of work by, 191.
Charcoal pegs for actual cautery, 512.
Cheiloplastic operations, 3, 19, 433.
Cheloid, remarks on, 239.
Chest, gunshot wound of, 17.
Chicago Charitable Eye and Ear Infirmary, report of, 391.
Chicago, medical matters in, 45, 116, 316, 413.
Children, mortality of, in Europe, 235.
Chisolm, Dr. A., new inhaler of, 508.
Chlorine, effects on vaccine virus, 36.
Chloroform, death from, 68; internal use of, 427; review of work on, 16; new inhaler for, 508.
Chlorosis, remarks on, 161.
Cholera, remarks on, 29, 33, 54, 60, 67, 70, 80, 89, 96, 103, 107, 109, 111, 118, 130, 134, 143, 150, 175, 191, 195, 199, 201, 206, 223, 230, 241, 246, 252, 266, 270, 273, 291, 295, 300, 315, 319, 324, 330, 334, 340, 343, 361, 367, 391, 413, 416, 437, 476, 579.
Chordee, explanations of, 578.
Cholera-infantum, discussion on, 313.
Circular No. 6, review of, 41.
Civilization, effects of, on floral system, 179.
Clark, Dr. A., on cholera, 29, 54, 80, 89, 103, 130, 206, 230, 252, 300; on hypodermic injections, 160.
Clavicle, case of removal of, 20; fracture of, 58; entire dislocation of, 79.
Cleft palate, case of operation for, 3; conservative treatment for, 282.
Clinical instruction, value of, 261.
Clitoris, elephantiasis of, 193; extirpation of, 226, 272, 547.
Coccygeal cysts, a case of, 378.
Codeine, value of, 227.

Coffee, method for making, 67.
Cohen, Dr. J. Solis, nebulized fluids, 147; laryngoscopy, 178, 228, 275, 347, 393, 443, 538.
College commencements, 47.
Collodion as a surgical dressing, 403.
Color blindness, cause of, 523.
Commencement of colleges, 47.
Connecticut State Society, review of transactions of, 407.
Convulsions, infantile, remarks on, 395, 403, 446, 468.
Copper, chloride of, in cholera, 330.
Cornea, removal of foreign particles from, 251.
Correspondence, 4, 45, 69, 95, 116, 195, 315, 387, 410, 483, 557.
Coryza, instantaneous cure of, 21.
Cox, Dr. H. G., obituary notice of, 199.
Cranium, pus within the cavity of, 378.
Creamer, Dr. Joseph, on ovariotomy, 205.
Cricoid cartilages, fracture of, 507.
Cripples, indigent, relief for, 48; number of, in England, 548.
Cutter, Dr. J. B., on ovariotomy, 371.
Cystitis, healed by cystotomy, 568.

D.

Da Costa, Dr. J. M., clinics of, 88, 106, 262; review of work by, 383.
Dalton, Dr. J. C., on vivisection, 504.
Daltonism, case of, 523.
Davies, Thomas, review of work by, 16.
Davis, Dr. H. E., on gleet, 118.
Davis, Dr. H. G., review of work by, 526.
Dead Sea, observations upon waters of, 503.
Deafness, cure for some varieties of, 308; operation for cure of, 22.
Deaths by battle and disease, 284.
Delirium tremens, capsicum in, 260.
Demilt Dispensary, annual reports of, 27.
Diabetes, treatment of, 36, 176, 284.
Diagnosis and Prescription Record, notice of, 383.
Diphtheria, remarks on, 145.
Disease and nature, 194.
Disinfectants, remarks on, 36, 100, 121, 126, 148, 215, 236, 257, 330, 559.
Dislocations, review of work on, 430.
Dixon, James, review of work by, 358.
Doctor of medicine, examination for the degree of, 309.
Dorran, Dr. Wm. M., gunshot fracture of femur, 466.
Dowell, Dr. Greenville, radical cure of hernia by new method, 265.
Draper, Dr. John C., on leaden pipes, 108.
Draper, Simeon, notice of death of, 487.
Draper, Dr. W. H., dissecting aneurism, 32; pathology of pneumonia, 364.
Dumbbell crystals, new view of, 332.
Dysentery, chronic, discussion on, 217; geum virginianum in, 384.

E.

Ear, cause of crackling sound in the, 308; exfoliation of internal, 338; inflammation of, etc., 361.
East River Medical Association, proceedings of, 90, 165, 217, 313, 359, 408, 483, 555.
Editorial articles, 13, 37, 63, 85, 109, 137, 167, 189, 213, 237, 261, 285, 309, 333, 357, 381, 405, 453, 477, 501, 525, 549, 575.
Education, medical, remarks on, 213, 237, 261, 309, 357, 387, 429.
Elbow, traumatic arthritis of, 19; partial anchylosis of, 58; resection of, 185.
Electric spark, duration of, 194.
Electricity, medical, review of work on, 336; remarks on, 419, 465, 514.
Elliot, Dr. Geo. T., infantile convulsions, 403, 446.
Emigrant ships, overcrowded, 167.
Emmet, Dr. T. A., a new retractor, 115.
Emphysema, discussion on, 359.
Endoscope, description of the, 50.
England, mortality of children in certain towns of, 236.
Enos, Dr. D. C., tumor of lower jaw, 362.
Epilepsy, review of work on, 64; treatment of, 225, 434.
Epithelioma, case of, and remarks on, 281.
Erigeron Canadense in gonorrhœa, 467.
Erysipelas, treatment of, 578.
Errhines, value of, 226.
Erythroxylon coca, properties of the, 166.
Ether, new inhaler for, 114; monument to discoverer of, 126; use of spray of, 192, 451.
Eye, review of works on diseases of, 287, 358, 577; caustic to the, 457; removal of foreign body from, 524.

F.

Face presentation in mento-posterior position, remarks on, 513.
Fallopian pregnancy, treatment of, 553.
Fees, increase of lecture, 383, 502, 557.
Femur, compound fracture of, 239, 466; sequestrum in cancellous tissue of, 441.
Fenner, Dr. E. D., notice of death of, 222.
Ferri persulphate, danger of injection of, 548.
Fever, acute autumnal, case of, 353; typhoid, case of, 354; African, treatment of, 380.
Finnell, Dr. T. C., necrosis of ribs, 377; arteritis, 504.
Fish, Dr. A. D., on muriate of ammonia, 531.
Fistula in ano, operation for, two hundred years ago, 463.
Fletcher, Dr. W. B., review of work by, 334.
Flint, Dr. Austin, on aphasia, 4; on cholera, 97; review of works by, 272, 503; clinics of, 354, 424, 449.
Flint, Dr. Austin, Jr., review of work by, 65.
Fœtus, existence of, after death of mother, 403; apparent death of, 403; delivery of, per anum, 427, 451; absorption of, 553; spontaneous evolution of, 562.
Foot, perforating disease of the, 125.
Forceps, a new, description of, 460.
Fractures, early treatment of, 28; primary union of wound in compound, 546; of clavicle, 58; of radius, 59; review of work on, 430.
Francis, Dr. S. W., review of work by, 311.
Freezing to death, phenomena of, 547.
Frost-bite, remarks on, 239.

G.

Garratt, Dr. A. C., review of work by, 336.
Garrish, Dr. J. P., albuminuria without convulsions, 377.
Gas from apples, 548.
Gastrotomy, case of successful, 113.
Generation, prevention of, by sugar, 175.
Geological discovery in California, 408.
Geum Virginianum in dysentery, 384.
Gibbes, Dr. R. W., death of, 414.
Gilbert, Dr. J. P., review of work by, 334.
Gleet, treatment of, 118.
Gonorrhœa, novel treatment for, 192, 467.
Gould, Dr. A. A., notice of death of, 390.
Greene, Dr. W. W., removal of large bronchocele, 441; vesico-vaginal fistula, case of obstinate, 465.
Griscom, Dr. J. H., on cholera, 34, 134; on influences of the uterus, 159; on ventilation, 215; on uræmia, 377.
Gross, Dr. S. D., clinics of, 183, 401, 473, 522; on increase of lecture fees, 557.
Gunn, Dr., on cholera, 90.
Gutta-percha shoe for talipes, 6.

H.

Hadden, Dr. A., replacement of arm presentation by new method, 293.
Hæmorrhage, accidental puerperal, 10, 470.
Hæmorrhoids, arsenic in, 112, 451; screw clamp in, 284.
Hair, sudden blanching of, 356.
Hall, Dr. E., ointment syringe, 291.
Hamilton, Dr. Frank H., clinics by, 19, 58, 239, 281; trephining, 378; review of work by, 430; sequestrum in femur, 441; on amputations, 327, 397; fracture of thyroid cartilages, 507; spontaneous recovery from tetanus, 547.
Harelip, new instrument for, 533.
Harris, Dr. E, on cholera, 134.
Heart, clinical remarks on diseases of, 354, 424, 449.
Heath, Dr. N. W. J., on suppression of urine, 350; on cholera, 361.
Hematic, an efficient, 452.

Hippophagy in Paris, 307.
Herzog, Dr., on cholera, 60, 90.
Homœopathic patients, diet for, 319.
Homœopathy in cholera, 273.
Holton, Dr. H. D., on diphtheria, 145.
Hospital appointments, remarks on justice of, 459, 483.
Hospital; for the insane, 189; the new German, 343.
Hunt, Dr. E. M., disinfectants, 148.
Hutchison, Dr. J. C., abscess of bone, 93; cancer of testicle, 337, 456; instrument for harelip, 533.
Hydatid cysts of pelvis, 67.
Hydrofluoric acid, action of on glass, 179.
Hydrophobia, case of, 532.
Hydronephrosis, 418.
Hypodermic medication, 171, 548; dangers of, 176, 548.
Hypodermic syringe, improved form of, 24.
Hypospadias, case of, 92.

I.

Idiocy, review of work on, 287.
Idiots, experimental school for, 430.
Iliac, ligature of primitive, 193.
India, female medical mission in, 512.
Indiana State Medical Society, report of transactions of, 455.
Indium, a new metal, 152.
Inhalation in respiratory diseases, 578.
Inhalers, description of new, 44, 70, 508.
Insane poor, provision for the, review of work on, 478; hospitals for the, 189, 248, 285, 415.
Insomnia, treatment of, 377.
Instruments, description of new, 23, 44, 69, 94, 114, 169, 243, 265, 291, 364, 385, 460, 508, 533, 558, 580.
International Sanitary Conference, 119.
Intestine, intussusception of, 177; tuberculous disease of, 456.
Intussusception, cases of, 177.
Iodine in coryza, 21; in leucorrhœa, 36; in diabetes, 36; supply of, 114; new test for, 503.
Iridoscope, the, account of, 152.
Iron, perchloride, danger of injecting the, 548.
Island Hospital, the, 63.
Itch, balsam Peru in, 36; treatment of, 283.

J.

Jaws, causes of immobility of, 354; bony tumor of, 362.
Jefferson Medical College reports, 183, 401, 473, 522.
Jones, Dr. C. Hanfield, review of work by, 502.

K.

Kellog, Dr. A. O., review of work by, 358.
Kammerer, Dr., on metritis, 527.
Kemmerer, Dr. W. H., death of, 414.
Kidney, cystic degeneration of, 188; causes of hyperæmia of, 404.
Knife, a new double-bladed, 69.
Kousso as an anthelmintic, 483.
Krackowizer, Dr. E., on neuromata, 436.

L.

Laminaria Digitata, uses of, 241.
Laryngoscopy, review of work on, 43; Cohen on, 228, 275, 347, 392, 443, 538.
Lead, sheet, as a dressing for wounds, 452.
Leaden pipe, a new article of, 108.
Lecture term, 383; extension of the, 213.
Lee, Dr. C. A., on disinfectants, 126; on cholera, 201; on insane poor, 478.
Lee, Dr. W., hydronephrosis, 418.
Lenses, gold and silver leaf for, 450.
Lente, Dr. F. D., new ointment syringe, 94, 364, 558; new inhaler, 114.
Leucocytes, experiments on the generation of, 404.
Lidell, Dr. John A., osteo-myelitis, 186.
Life, gain in duration of, 536.
Ligaments, vessels and nerves of, 284.
Lithotomy, 150, 183.
Little, Dr. J. L., Plaster Paris splints, 537.
Liver, case of abscess of, 523.
Livingston, Dr. W., spring caustic probe, 23; gunshot wound of bladder, 185.
Locomotor ataxy, treatment of, 227, 311; pathology of, 288, 311.
London, water supply of, 211.
Long Island College Hospital reports, 354, 424, 449.
Ludlum, Dr. C. H., report by, 547.
Lunatic Asylum, report of State of Massachusetts, 512.

M.

Maine Medical Association, meeting of the, 296.
Mamma, epithelial cancer of, 457.
Mania, hysterical, case of, 507.
March, Dr. A., removal of calculus from urethra, 562; marriages by consanguinity, 563.
Massachusetts Medical Society, 221.
Materia Medica, review of work on, 431.
Maury, Dr. R. B., traumatic stricture, 417.
Maxilla, superior, excision of, 235, 505.
Medical appointments, remarks on, 477; certificates, value of, 501; journalism, 453; journals, new, 15, 110, 310, 460, 512; preceptorship, 429; studies, systematic regulation of, 237.
Medical Record, prospectus of the, 13; contributors to, 576.
Medical Register, N. Y., review of, 384.
Medical Society of the County of New York, 91, 161, 174, 390, 462.
Medical Society of Pennsylvania, meeting of, 219.
Medical Society of the State of New York, 14, 549, 561; review of transactions, 406.
Medicine, is it a science? 408.
Meigs, Dr. J. F., clinic of, 353.
Membrana tympani, perforation of for deafness, 22.
Meningeal apoplexy, case of, 106.
Merrill, Dr. A. P., homœopathy and cholera, 273; infantile convulsions, 395.
Menstruation at seventy-two, 114; premature, 332, 402.
Metcalfe, Dr. John T., on cholera, 33.
Metritis, chronic, 547; discussion on, 480, 527.
Metropolitan Board of Health, 63, 216, 242; officers of, 47, 92.
Metropolitan Health Bill, 37.
Mexico City, sanitary condition of, 243.
Miasmatic poisons, conveyance of, 22.
Microscopic objects, mounting of, review of work on, 16.
Milk in disease, 579.
Monell, Dr. J. A., new treatment for asthma, 293.
Moral Insanity, remarks on, 333.
Morbus Coxarius, treatment of, 436.
Morgue of Bellevue Hospital, 224.
Morphia, hypodermic injection of, 160.
Mott, Dr. Valentine, notice of eulogy on, 168.
Mucous tubercles, nature of, in prostitutes, 93.
Muscular fibre, development of, 22; termination of nerves of, 331.
Mussey, Dr. R. D., obituary notice of, 269.

N.

Narcotics, review of work on, 65.
National quarantine, 87.
Nature and disease, 194.
Navy, medical rank in the, 144; examination of board of, 48; bureau of medicine and surgery of, 472.
Nebinger, Dr. A., brain abscess, 61; hydrophobia, 532.
Nebulized fluids, remarks on, 147.
Nebulizers, accounts of, 169, 192, 219, 243.
Needle director, a new, 195.
Needle-gun, wounds from, 512.
Neligan, Dr. J. M., review of work by, 527.
Nelson, Dr. R., review of work by, 334.
Nervous system, Brown-Séquard on affections of, 225.
Neuralgia, treatment of, 171, 353, 433.
Neuromata, cases of, 436.
New York Academy of Medicine, transactions of the, 24, 33, 47, 60, 80, 107, 133, 159, 185, 215, 240, 257, 361, 433, 480, 504, 527, 554.

New York County Medical Society, transactions of, 47, 118.
New York Hospital reports, 16, 32, 450; condition of, 526.
New York Infirmary for Women and Children, 48.
New York Medical Journal Association, 14, 440, 554.
New York Pathological Society, transactions of, 22, 62, 92, 185, 337, 362, 377, 434, 456, 504, 553.
New York Society for the relief of the ruptured and crippled, 224.
Newman, Dr. W., on meningitis, 165.
Nicotine, baneful effects of, prevented, 193.
Nitrous oxide, review of work on, 336.
North, Dr. N. L., entire dislocation of clavicle, 79; new forceps, 291.
Northern Dispensary, report of, 27.
Note-taking during lectures, 406.
Noyes, Dr. H. D., foreign notes among oculists, 339, 365, 410, 458; on retinitis, 504.
Nurses, estimation of female, 472.

O.

Obituaries, 71, 95, 197, 222, 269, 342, 390, 440, 487.
Œsophagoscopy, remarks on, 445.
Œsophagus, congenital stricture of, 294.
Opium, cultivation of, in America, 415.
Ophthalmic clinics in colleges, 15.
Ophthalmoscope and diseases of brain, 575.
Ordronaux, Prof., on prophylaxis, 530.
Ordway, Dr. John P., cholera in Boston, 439.
Orthopœdics, review of work on, 431.
Osteo-myelitis, cases of, 186, 351, 531, 552.
Otorrhœa, strong injections in, 403.
Our relations to each other, 405.
"Ourselves as others see us," 176.
Ovarian cysts, sebaceous, a case of, 457; pregnancy, delivery of fœtus per anum, 427.
Ovariotomy, cases of, 186, 351.
Oxalic acid, production of, 236.
Oxaluria, new view of crystalline deposit in, 332.
Oxygen, preparation of, 503.
Ozone, production of, 504.

P.

Paine, Dr. R. E., complicated strangulated hernia, 352.
Parallel knife, description of a new, 69.
Paralysis, reflex, review of work on, 384.
Parsons, Dr. John, congenital stricture of œsophagus, 294.
Parvin, Dr. T., vesico-vaginal fistulas, 321.
Patella, fracture of, 59, 475.
Peaslee, Dr. E. R., ovarian cyst, sebaceous, 457; metritis, 481, 528.
Pell, Dr. R. V., obituary notice of, 342.
Pennsylvania Hospital reports, 88, 106, 262, 353; review of Transactions of State Society of, 527.
Pereira, Dr., review of work by, 431.
Perineal retractor, a new, 115.
Perineal urethrotomy, remarks on, 491.
Periosteum, instrument for protecting the, 24.
Petroleum, poisoning by, 93.
Pharaoh's serpents, 13.
Philadelphia County Medical Society, meeting of, 531.
Philadelphia, medical matters in, 46, 69, 95, 171, 219, 291, 436, 484, 557.
Phlyctenular conjunctivitis, 7.
Phthisis, fermenting milk in, 9; diagnosis of, 36.
Piffard, Dr. H. G., perforating disease of foot, 125.
Physiology, review of work on, 65.
Pistol ball, removal of, by acupuncture needle, 188.
Plagues of the middle ages, 548.
Plaster Paris splints, uses of, 537.
Pneumonia, morbid anatomy of, 68; elimination theory of, 77; treatment of, 86, 351; discussion on pathology of, 363.
Poisons, miasmatic conveyance of, 22.
Polypus forceps, a new, 509.
Pomeroy, Dr. O. D., inhaler of, 44, 70; on ear, 361.
Population, density of, 415.
Post, Dr. A. C., treatment of talipes, 6; early treatment of fractures, 28; on resection, 185; needle director, 194; on Quarantine, 245; constricted vagina, 377; on trephining, 380; neuralgia, 433; polypus of rectum, 456.
Post-mortem examinations, how to make them odious, 368.
Potash, permanganate, use of, 148.
Potassium, bromide, value of, 227, 236, 377, 475, 476; iodide of, purity of, 68.
Pott's disease, cases of, treated by apparatus, 369.
Potter, Dr. H. A., wound of, tongue, 179.
Pregnancy, diagnosis of, 332.
Probst the murderer, autopsy of, 219.
Professional notoriety, 238.
Professors and their qualifications, 357.
Progress of medical sciences, 20, 36, 67, 93, 112, 135, 192, 211, 235, 259, 283, 308, 330, 355, 402, 427, 450, 474, 503, 547, 578.
Prospectus of MEDICAL RECORD, 13.
Prostate gland, centric hypertrophy of, 1; enlargement of, 373, 420; extraction of foreign body from, 308.
Prostitution, legislative recognition of, 550.
Puerperal; convulsions, lectures on, 499, 520, 540; hæmorrhage, remarks on, 10, 470, 496.
Pulse at different altitudes, 227.
Purpura hæmorrhagica, 160.

Q.

Quarantine, remarks on, 137, 141, 190, 201, 206, 216, 245, 262, 267, 307, 381.
Quinine, hypodermic injection of, 113, 434, 489; bromate of, 114; chlorate of, 260; as a prophylactic, 389.
Quinine, like substance in animal body, 332, 389.

R.

Radcliffe, Dr. C. B., review of work by, 64.
Radius, fracture of the, 59.
Rectum, case of cancer of, 22; case of polypus of, 456.
Reilly, Dr. John, on nervous system, 503.
Retina, traumatic inflammation of, 504; vessels on the yellow spot of the, 112.
Reynolds, Dr. J. B., cystic degeneration of kidney, 188; absorption of fœtus, 553.
Rheumatic arthritis, 88; paralysis, 106.
Rheumatism, acute articular, 135.
Rhigolene, 211.
Rhœundine, discovery of, 512.
Richardson, Dr. J. G., a simple nebulizer, 194.
Richardson, Dr. W. B., nebulizer of, 243.
Ristine, Dr. H., on trichiniasis, with cases, 249.
Rivinian foramen in membrana tympani, 93.
Rockwell, Dr. A. D., on electricity, 419, 514.
Roberts, Dr. W. C., on cholera, 107.
Roberts, Dr. W., review of work by, 190.
Rogers, Dr. S., quinine as a prophylactic, 389; cancer of mamma, 457; face presentation, mento-posterior, 513; arrest of hæmorrhage in Fallopian pregnancy, 553.
Roof, Dr. S. W., on cholera, 340.
Roosa, Dr. D. B. St. John, inhaler of, 44; present position of aural surgery, 554.
Rum, test for, 33.

S.

Sabine, Dr. T. T., popliteal aneurism, 16.
Sanitary Commission, meeting of International, 188.
Sansom, Dr. A. E., review of work by, 16; on bichloride of carbon, 93.
Sayre, Dr. L. A., on cholera, 143; on hysterical mania, 507.
Scapula, removal of, 20; fracture of, 450.
Scarlet fever, laws connected with the propagation of, 411.
Schuh, Prof., death of, 71.
Seguin, Dr. E., review of work by, 287; æsthesiometry, 510; thermometry, 516.
Sewing-machines, influence of on the health and morals of females, 512.
Sexes, production of at will, 428.
Shrady, Dr. John, reports of, 24, 33, 47, 60, 80, 90, 107, 133, 159, 165, 217, 240, 257, 313, 359, 408, 433, 483, 504, 527, 555, 561.
Simrock, Dr. A., new polypus forceps, 508.
Sims, Dr. J. Marion, review of work by, 383

Skin, absorption power of, 308; review of works on diseases of, 238, 527.
Skull, gunshot wound of, 17; injuries of, 363.
Slayter, Dr. J. H., death of, 152.
Smith, Dr. J. Lewis, intussusception, 177.
Smith, Dr. J. M., notices of death of, 133, 161, 175, 197.
Smith, Dr. O. H., on cholera, 118, 266, 315.
Smith, Dr. Stephen, adhesion of wound of compound fractures, 546.
Smokers, blindness and deafness of, 475.
Soap, vegetable, 503.
Southern army, cases in the, 550.
Specialists and specialism, 525.
Speech, cases of loss of, 4.
Sphygmograph, description of the, 580.
Spine, cause of curvature of, 164; treatment of by apparatus, 369, 439, 486, 534.
Spleen, notices on diseases of the, 404; removal of by operation, 22.
Spray-producing instruments, 169, 192, 194, 219, 243.
Squibb, Dr. E. R., on disinfectants, 100, 121.
St. Vincent's Hospital, 62.
State Medical Society, 14; delegates to the, 24; transactions of, 38.
State Woman's Hospital, 120.
Steam as a disinfectant, 236, 257.
Stearns's, Dr., urethral dilator, 23.
Stein, Dr., therapeutical applications of sulphites, 409.
Sterl, Dr. A., on emphysema, 359.
Stevens's triennial fund, 224.
Stiles, Dr. R. C., treatment of pneumonia, 351.
Stimulants, review of work on, 65.
Stirling, Dr. T. B., version by external manipulation, 52.
Storer, Dr. H. R., on umbilical hernia, 73; on extirpation of uterus, 168; letters from, 244; new clamp, 385.
Stricture, traumatic, 180, 278, 417.
Strychnia, antidotes for, 376.
Subclavian, case of ligature of, 380.
Sugar preventing generation, 175.
Sulphites and hyposulphites, therapeutical applications of, 409, 555.
Superfœtation, case of, 166.
Surgeons, distinguished, of New York, notice of work on, 311.
Surgery, review of work on, 15, 311.
Sycosis menti, cured by sulphate soda, 512; by nitrate potash, 581.
Syme, James, review of work by, 15.
Synovitis, treatment of, 72.
Syphilis, remarks on, 25, 98, 136; by vaccination, 548.
Syringe, a new, for ointment, 94, 558.

T.

Tænia, oxgall in, 36.
Talipes, gutta-percha shoe for, 6; plaster Paris splint for, 537; new treatment for, 554.
Tanner, Dr. T. H., review of works by, 15, 503.
Taylor, Dr. A. S., review of work by, 577.
Taylor, Dr. C. F., curvature of spine, 164, 487.
Teeth, action of medicinal preparations on the, 68; cause of caries of, 452, 476.
Tenement-house system, 86.
Testicle, extirpation of, 226, 337, 456, 522.
Tetanus, traumatic, case of, 473; spontaneous recovery from, 547.
Thermometry, 36, 516.
The past year, 575.
Theses, abolition of, 560.
Thomas, Dr. T. G., accidental puerperal hæmorrhage, 10, 470, 496, 540.
Thomson, Dr. W. H., on pneumonia, 77; on chlorosis, 161; tuberculous intestine, 457.
Thyroid cartilages, fracture of, 507.
Tibia, complete dislocation of head of, forwards, 117.
Tobacco, 464; production of necrosis of jaw, by oil of, 260; used by children, 423.
Toner, Dr. J. M., on cholera, 201.
Tongue, congenital hypertrophy of, 94; singular wound of, 179.
Toynbee, Dr. Joseph, notice of death of, 318.
Tracheotomy for epilepsy, 226.
Trephining for pus within the cranium, 378.
Trichinous disease, accounts of, 22, 72, 76, 136, 192, 194, 236, 249.
Tripler, Dr. Chas. S., death of, 440.
Trismus, case of traumatic, 352.
Tubercle, inoculation of, 504.
Tuberculous inflammation of glands, treatment of, 36.
Tyrrell, Dr. W., stricture of the urethra, 251.

U.

Umbilical hernia, a new operation for, 73, 244.
Umbilicus, excision for, for hernia, 73, 244; bleeding at the, 474.
Underhill, Dr. A., on cholera, 135.
Uræmia, case of, 377.
Urethra, treatment of stricture of, 524; new method of removing calculus from, 562.
Urethrotomy, perineal, remarks on, 491.
Urinary diseases, review of work on, 190.
Urine, case of extraordinary suppression of, 350; infiltration of, 352.
Urticaria, treatment of, 332.
Uterine leucorrhœa, iodine in, 36.
Uterine porte-cerate, a new, 364.
Uterine surgery, review of work on, 383.
Uterus, new method of treating inverted, 136; malignant influences of, 159; rupture of, 113.

V.

Vaccination, compulsory, 148; spurious, 260; remarks on, 475; syphilis by, 548.
Vaccine virus, chlorine in, 36.
Vagina, ointment syringe for, 291.
Vaginismus, remarks on, 524.
Van Buren, Dr. W. H., centric hypertrophy of prostate, 1; chronic urethral discharges, 49; traumatic stricture, 180, 278; enlargement of prostate, 373, 420.
Vandeveer, Dr., on cholera, 90.
Van Wagenen, Rev. W. M., death of, 461.
Variola of fœtus in utero, 523.
Venereal diseases, papers on, 25, 98.
Velpeau, Prof., review of work by, 527.
Ventilation, remarks on, 215.
Veratrum viride, action of, 427.
Vermilye, Dr. W. E., treatment of Pott's disease, 369.
Version by external manipulation, 52.
Vesico-vaginal fistula, remarks on, 53, 192, 245, 321, 431, 465.
Vivisection, defence of utility of, 454, 504, 566.
Voss, Dr. L., cancer of rectum, 22; osteo-myelitis, 552.
Vreeland, Dr. B., death of, 152.

W.

Washington, a new hospital at, 272.
Weisse, Dr., alkaline sulphites, 555.
Westcott, Dr. N. S., report by, 546.
Wet-nursing in France, 577.
White, Dr. O., on insomnia, 377.
Whitehead, Dr. W. R., urethrotomy, 491.
Willard Asylum for Insane, establishment of, 285.
Williams, Dr. E., blepharitis ciliaris, 7.
Williams, Dr. H. W., review of work by, 287.
Winslow, Dr. John, reports of, 19, 58.
Wilson, Dr. E., review of work by, 238.
Wood, Dr. C. H., death of, 461.
Wood, Dr. G. B., review of work by, 551.
Worm-lozenge vender and Dr. Budd, 319.

Y.

Young, Dr. O. H., amputation in utero, 27.

Z.

Zabriskie, Dr. L., obituary notice of, 95, 198.
Zinc, sulphate of, injections with, 475.

SERIAL

R
11
M433
v.1
c.1

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Medical record